BEVERLEY NARROGIN TRANSPORT TRAIL

Volume 1: STRATEGIC PLAN

NOVEMBER 2025

PREPARED FOR:

Shire of Beverley

Shire of Brookton
Growing the future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin
Love the life

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CONTENTS

INTRODUCTION

The Beverley Narrogin Transport Trail is a proposed 105km trail providing a long distance off-road riding and walking experience through natural settings connecting the towns of **Beverley, Brookton, Pingelly, Cuballing** and **Narrogin.**

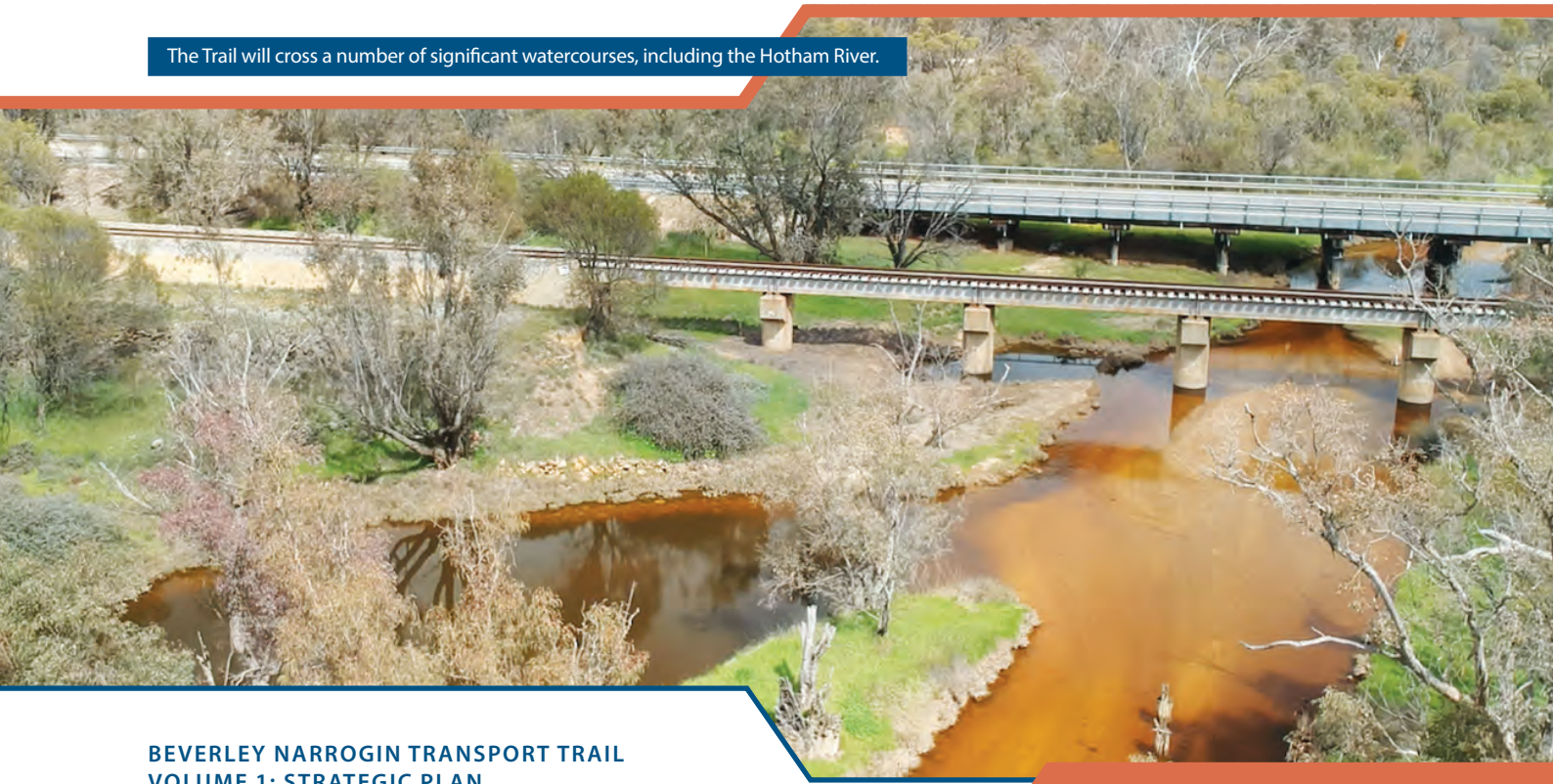
The WA Department of Transport, in its various 2050 Cycling Strategies (such as the *Avon Central Coast 2050 Cycling Strategy*), defines Transport Trails as long-distance, predominantly unsealed trails which are typically used to connect towns. Unlike downhill mountain biking trails, Transport Trails are non-technical in design. While there will be some level of crossover, Transport Trails provide users with a more passive bike riding experience.

Perhaps the greatest advantage of Transport Trails, according to the Department of Transport, is that they can provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. They often support recreational and tourism trips between towns and regions. Transport Trails provide opportunities for longer tourist rides that can be marketed as inclusive itineraries, individual journeys of discovery or providing connections between smaller locations.

The project partners – the Shires of Beverley, Brookton, Pingelly, Cuballing and Narrogin - were successful in receiving funding from the WA Bicycle Network Grants Program to undertake a Feasibility Study for the trail. The full Feasibility Study has been prepared by Mike Halliburton Associates and Transplan Pty Ltd and is presented as Volume 2.

The Feasibility Study found the project was feasible and should be pursued. This Strategic Plan sets out an overview of the trail concept, the defined route, the trail's costs, benefits and issues and an implementation plan.

The Trail will cross a number of significant watercourses, including the Hotham River.



THE TRAIL CONCEPT

The proposed Beverley Narrogin Transport Trail will be a trail that offers two trail experiences: an on-road cycle touring route and an off-road shared use trail.

The trail will be a 100+ km trail that threads its way through the Wheatbelt region connecting the towns and villages of Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin. Through a process of fieldwork, community consultation (including an on-line survey), input from the project partners and considerable work on various options, the Beverley Narrogin Transport Trail has been developed as a trail network offering two routes for riders and walkers to explore the sub-region of the Wheatbelt extending from Beverley to Narrogin. The two routes within the trail are an on-road cycle touring route (the "Orange" route) and an off-road shared use trail (the "Green" route). These routes are shown in Plans 1-9 in Appendix 1.

The trail offers a series of circular routes that start and finish in each of the six towns and villages in the sub-region. The trail also offers users the opportunity to ride or walk from the northern end of this sub-region (at Beverley) to the southern end (at Narrogin) and also offers a return journey opportunity on an alternative route (particularly suitable for cyclists). Trail users can do as much or as little of the trail as they want and can choose an on-road cycling route using quiet country roads (generally unsealed) and/or an off-road walking and cycling route that generally runs along the railway line and the Great Southern Highway through this sub-region.

The Orange route particularly offers spectacular views in so many directions. What is on offer from this ride are varied vistas (in both the near and far visual field) offering trail users "up close and personal" interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant mountains are attainable along sections of the roads, while also on offer is the opportunity to ride through Dryandra Woodland National Park on a constructed road. The Green route (running primarily along the Great Southern Highway and the railway) offers less attractive scenery although there are sections that will be quite attractive. The northern section (Beverley to Brookton) offers riverside walking and riding for much of its route and along quiet country roads into Brookton. Good trail design along other sections may leave a band of trees between the trail and the less aesthetically pleasing aspects of the trail route.

The trail offers the opportunity to connect users to other proposed trails in the north (the proposed County Peak and Ski Lake Transport Trail) and the south (the proposed Narrogin Williams Rail Trail). Plans 1 and 5 show these proposed trails in relation to the Beverley Narrogin Transport Trail.

The Beverley Narrogin Transport Trail will form a strategic link in the regional trails network by:

- Directly connecting the towns of Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin;
- Connecting the transport trail to planned trails within the Shire of Beverley;
- Eventually linking to York, Northam, Toodyay and the Perth Hills from Beverley;
- Connecting to a planned rail trail from Narrogin to Williams; and

- Linking Dryandra National Park (a planned primary regional trail destination) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

The trail will be a regional facility to attract a range of users from across south western WA (and further afield). The proposed trail also has the potential to make connections, and therefore much longer trail experiences, by joining up with proposed trails in the Avon Region, and with the established and proposed trails network in and around Collie.

During the Feasibility Study preparation, the Chief Executive Officer of the Shire of Pingelly undertook media interviews promoting the trail as a trail that could form part of the longest walking and cycling continuous loop trail in Australia.

The trail will attract the cycle touring market (particularly the Orange route) and can deliver on some of the outcomes being sought by the various relevant strategies such as the *Avon Central Coast 2050 Cycling Strategy*, the *Concentric Circles: Guidance for Trails Tourism Close to Perth* Report (2024) and the *Wheatbelt Regional Tourism Development Strategy 2023-2033*. The Orange route delivers adventure riding and specifically offers the chance to provide a signposted developed cycle link to the Dryandra Woodland National Park. The Green route also goes some way to addressing the outcomes being sought in the above strategies. An on-line survey (which garnered 375 responses, the vast majority of 69% from the Perth Metropolitan area) conducted for the project showed that 95% of respondents said they would enjoy the opportunity to travel between Beverley and Narrogin on a trail off the Great Southern Highway. 65% of respondents said they would use both trails. When asked how they would use the proposed trail, 41% of respondents said they would use the Green and Orange routes as a loop returning to the point of departure; 18% said they would ride end to end and then return - out on one route and back on the other; 16% would ride or walk short sections e.g. out of a town and back again on the same route; 13% said they would use the trail end to end without a return. 66% of respondents said they would use the trail a few times/year, while 11% said they would use it once/month. The Beverley Narrogin Transport Trail will respond to a user demand.

An opportunity exists for several towns of the Wheatbelt to develop as trail destinations. Beverley, Pingelly and Narrogin for example are well positioned to emulate the progress being made in other trail towns. Though they do not have the Bibbulmun Track or the Munda Biddi passing through their town centres, what the towns between Beverley and Narrogin do have is a unique opportunity to develop a long distance transport trail of approximately 100+ km (the Green route) and over 200 kilometres (the Orange route) connecting the 5 towns, and to capitalise on the existence of existing and proposed trails in the towns and in the region. Promoting the trail as a small part of a much longer trail (which the Shire of Pingelly CEO has done) makes the Wheatbelt a more attractive destination and this trail more attractive as part of a longer, more appealing walk and ride.

THE TRAIL ROUTE

The Orange Route – the cycle touring route

The on-road trail utilises scenic country roads and caters to the needs of cycle tourists. The route connects the towns and villages in a scenic way and represents the essence of cycle touring. It gets users "up close and personal" with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer and accesses other attractions e.g. old school sites; old town sites e.g. Moorumbine. The Wild Gravel Trail, centred out of Gnowangerup, is an example of a successful cycle touring route using predominantly quiet, gravel, backroads through interesting wheatbelt scenery. Long views to distant mountains and a journey through Dryandra Woodland National Park are also on offer.

The indicative alignment shows a trail of approximately 213.3kms for the Orange route. The approximate distance between the towns and villages is as follows:

- **Beverley – Brookton** **52.4kms**
- **Brookton – Pingelly** **55.3kms**
- **Pingelly – Popanyinning** **31.5kms**
- **Popanyinning – Cuballing** **37.7kms**
- **Cuballing – Narrogin** **36.4kms**

An on-road cycling route between Beverley and Narrogin using scenic backroads has been recommended.

The Green Route – the shared use off-road route

The off-road trail will be an unsealed 1,200mm – 1,500mm minimum wide shared use trail offering users the opportunity to ride or walk side by side and is in keeping with the desire of the Department of Transport to provide a trail that is to be wide enough to allow two people to ride comfortably side-by-side.

The Green route offers direct connection between towns and is safer thus providing better opportunities for family groups and those staying in caravan parks who may not be experienced or competent cyclists but like to go for a leisurely short ride (or walk). It caters for walkers as well as cyclists. A key market for the Green route is the 'cruiser market'. This market, as defined in the *Pingelly Mountain Bike and Cycling Strategy 2022-2026*, consists of families on holidays who incorporate cycling as part of that holiday. This market is typically made up of families with school-age children with a casual interest in cycling who tend to take shorter holidays (less than a week) in familiar places. Three-quarters are 'cyclists while on holidays'. For this group, cycling experiences should be easy, unchallenging, casual, low-risk, inclusive, covering short distances and involve sightseeing. On a traditional mountain bike trail, single track trails tend to wind around obstacles such as trees, large rocks, and vegetation. The narrow and frequently rough nature of single track demands constant focus and a slow to moderate speed. On trails where bushwalkers share with mountain bikes, a trail width of 1,200mm - 1,500mm is appropriate allowing two mountain bikes to pass comfortably, allowing side by side riding and walking, and facilitating passing in both directions. Extensive wayfinding signage will be used to direct users to, from and along the route.

The indicative alignment shows a trail of approximately 101.1kms for the Green route (plus the distance between Beverley Trailhead and Caudle Road). The approximate distance between the towns and villages is as follows:

- **Beverley-Brookton** — **31kms + distance between Beverley trailhead and Caudle Road** (to be calculated under a separate project)
- **Brookton – Pingelly** — **20kms**
- **Pingelly – Popanyinning** — **16.4kms**
- **Popanyinning – Cuballing** — **17.3kms**
- **Cuballing – Narrogin** — **16.4kms**

Trailheads to serve both routes will be developed at:

- **Beverley - Apex Park;**
- **Brookton - Pioneer Park;**
- **Pingelly – Pioneer Park;**
- **Cuballing – Youth and Community Park;** and
- **Narrogin – Visitor Information Centre.**

THE TRAIL ROUTE DETERMINATION PROCESS

There are some key overall guiding elements that have informed the route selection process:

- There is no ideal or perfect route for either of the two trail routes (the Green and the Orange). **The routes chosen are designed to deliver a trail that is being sought by the brief and the project partners.**
- The best achievable routes have been chosen through towns despite – in some cases – not being particularly attractive. A good example is the use of Earl Street North in Narrogin (for both routes). This route takes users past an industrial area – not the most scenic introduction to Narrogin. The Green route into Brookton from the north takes users through rural residential development.

WITH RESPECT TO THE GREEN ROUTE:

- If ARC Infrastructure would agree to using the existing maintenance track within the railway reserve, and all the road reserves alongside the railway reserve and highway were continuous, a better Green route could be delivered. **This is not the case.** Much of what was originally proposed for the Green route (a railway maintenance track) is in railway reserve and cannot be used. Advice from the Public Transport Authority was that for safety reasons (and this is a relatively active line), Arc Infrastructure's (the rail corridor manager) maintenance /access tracks are not available for shared use by recreational users.
- New trail will need to be constructed for over 81kms of the proposed Green route as a consequence of the existing land tenure arrangement with Arc Infrastructure. **A new trail cannot utilise the railway maintenance track where it is within railway reserve.**
- Use of the maintenance track where it is within an adjoining road reserve has been included within the route mapping. These are the only locations where the maintenance track can be used.
- Where road reserves are adjoining (continuous) - and accessible - they have been utilised.
- The Green route will be built primarily alongside the railway reserve and within close proximity to the Great Southern Highway.
- In some instances, the lack of parallel road reserves necessitates the use of the Great Southern Highway verge.
- The road reserves are discontinuous and not always accessible creating the need to cross the Great Southern Highway numerous times – an unavoidable feature of the Green route. The limited number of existing (controlled) railway crossings also prevent the trail crossing over the railway/highway to more attractive road reserves in some locations. Whilst some road reserves may be more attractive than ones chosen, it is impossible to access them due to railway reserves between the Great Southern Highway (and other roads) and the road reserve. It is believed approval for new crossing points will be very difficult – if not impossible - to obtain.

- It may be possible in certain locations to avoid some road crossings by negotiating easements with adjoining landholders to provide more direct or parallel routes or minimise crossings. This has not been explored in any detail but each of the project partners should be open to the possibility of altering the Green route by use of easement if this addresses any of the issues around railway and road crossings (whilst not compromising other sections of the route which have been carefully planned).
- Clearing for the trail and tree lopping is unavoidable, particularly along narrow roadside verges.
- There are a large number of water crossings along the Green route – rivers, creeks and drain lines that need to be crossed adding significant expense to the project. In addition, due to the low-lying nature of the land, there is ongoing potential for sections of trail to become "boggy" after rain – again these will need to be dealt with. Lengthy sections of boardwalk will be unavoidable due to seasonal inundation. Fieldwork looked to maximise "high and dry" routes; this was not always possible. No handrails will be needed as the fall to ground will be less than 1 metre.

WITH RESPECT TO THE ORANGE ROUTE:

- Consideration has been given to the best roads to use to avoid heavy agricultural machinery particularly at harvest and seeding times. No alternative route to the use of Bremner Road taking users south from Beverley has been found (community consultation indicated some concern with this route). However, that particular section has been highlighted as a possible transport trail in the *Avon Central Coast 2050 Cycling Strategy.*

Some short sections of public road reserves are used as the maintenance track for the railway.

PROJECT COSTS

Capital and maintenance costs are a major consideration in any public infrastructure project. These need to be offset against a range of benefits – both economic and non-economic. Broad cost estimates are a part of this project. Accurate costs can only be determined, firstly, by the compilation of more detailed works lists accomplished through detailed planning work for the proposed trail(s) and, secondly, via a tendering process.

The Feasibility Study set out in detail likely costs of development for the trails, and these are shown below.

Table 1: Total costs by town connections - Orange Route

Section	Cost
Beverley - Brookton	$65,050
Brookton - Pingelly	$62,590
Pingelly - Cuballing	$65,785
Cuballing - Narrogin	$59,230
TOTAL (Excluding GST)	$252,655

Table 2: Total costs by town connections - Green Route

Section	Cost
Beverley - Brookton (excl. Apex Park - Caudle Road, Beverley)	$3,223,005
Brookton - Pingelly	$1,990,310
Pingelly - Cuballing	$3,048,560
Cuballing - Narrogin	$603,340
TOTAL (Excluding GST)	$8,865,215

Table 3: Total costs by local government - Orange Route

Section	Cost
Shire of Beverley	$34,180
Shire of Brookton	$53,530
Shire of Pingelly	$55,615
Shire of Cuballing	$76,010
Shire of Narrogin	$33,320
TOTAL (Excluding GST)	$252,655

Table 4: Total costs by local government - Green Route

Section	Cost
Shire of Beverley (Excluding Apex Park - Caudle Road)	$1,165,340
Shire of Brookton	$3,013,025
Shire of Pingelly	$1,772,910
Shire of Cuballing	$2,778,060
Shire of Narrogin	$135,880
TOTAL (Excluding GST)	$8,865,215

Ongoing trail maintenance is a crucial component of an effective management program – yet it is often neglected until too late. It is therefore essential that funds be set aside in yearly budgets for maintenance of this trail – to ensure user safety and enjoyment, and to minimise liability risks for land managers.

TRAIL BENEFITS AND IMPACTS

Forecast trail use and visitation

The economic impact of any proposed trail is primarily dependent on the extent to which the trail is marketed and promoted. The survey conducted for this Feasibility Study indicated that 177 people (69% of respondents) were from the Perth metropolitan area and indicated they would use the trail a few times/year, while a further 29 people said they would use it monthly. Both these responses indicate that repeat visits may be a critical factor in any trail's success.

A trail will bring additional tourists and keep them longer in the area. Other possible benefits from developing the trails include:

- Improvements to community connectivity;
- Increasing recreational opportunities for local people; and
- Creating opportunities to build on existing industries and enterprises of the area.

A trail such as the proposed Beverley Narrogin Transport Trail will have attraction to visitors. However, it will also add to the stock of existing trails for local people – people who live in towns and villages within easy reach of the trail. Some of these people will use the trail for exercise – these 'back gate' users may not be significant in terms of expenditure, but they are significant in terms of numbers as they would use the trail many times each year. The survey responses indicated that the most frequent use for residents of the Wheatbelt specifically would be a few times/year. 23 respondents from the Wheatbelt said they would use the trail a few times/yr (38% of respondents from the Wheatbelt) while 10 (17%) said they would use it monthly and 6 said they would use it weekly (from a total of 60 respondents from the Wheatbelt).

With good marketing, the trail will attract local users and visitors. Under a relatively conservative scenario, the following outcomes are achievable.

- Local use – 7,285 local users/year is a reasonable expectation based on the survey results. This will result in an economic injection of $19,450/year.
- If 3,000 visitors stay an extra day to use the trail (or part of the trail), an additional $762,600/year would be injected into the regional economy.
- If 2,000 new visitors come to the region solely (or primarily) to do the trail, an additional $1,016,800/year would be injected into the regional economy.

The total injection of dollars into the local economies from local, day trip and overnight visitors may be of the order of **$1,798,850/ year** (under a range of conservative scenarios) from **12,645 users.**

Trails can improve community connectivity and provide increasing recreational options for local people thus contributing to both physical and mental health of communities through which they pass. There are a range of non-economic benefits accruing to local and wider communities from trail construction and use. The Department of Local Government, Sport and Cultural Industries' *More People More Active Outdoors* (2019) identified five key pillars supporting the benefits of outdoor recreation (cited in *WA Mountain Bike Strategy 2022-2032*). These were:

- Personal development, challenge and enjoyment;
- Improved health and well-being;
- Outdoor learning;
- Connection to nature; and
- Economic development.

Attractive tree-lined gravel roads are a feature of the recommended "Orange" route.

TRAIL OPPORTUNITIES

The Beverley Narrogin Transport Trail will provide several notable opportunities. There are a number of specific elements within the area encompassed by the proposed trail route that provide opportunities and reasons for why a trail should be built.

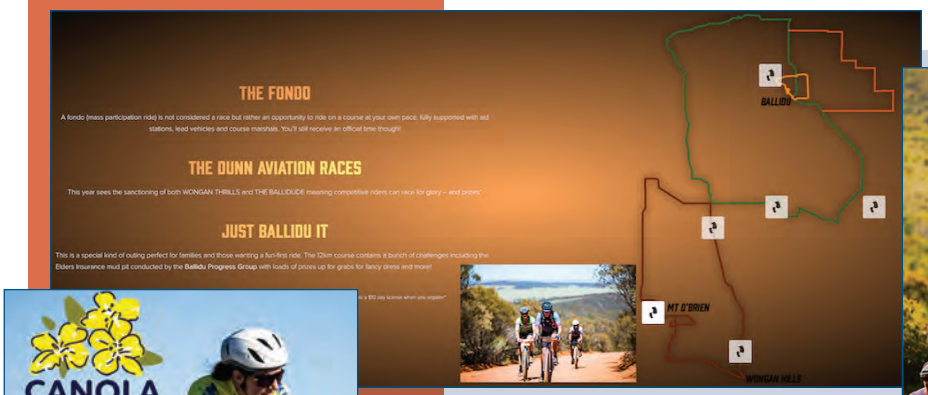
- **Satisfying an existing demand.** The trail will satisfy an existing demand for cycling trails (as well as walk trails to a lesser extent). In the three years to 2018, 29% of Australians had a holiday that involved a cycling experience. Of these, 28% were categorised as destination cycle tourists while 72% were categorised as cyclists while on holiday (*WA Strategic Trails Blueprint 2022-2027*). For the Beverley Narrogin Transport Trail, the two key markets are "gravel grinding" and bike packing/back country touring (as defined in the *Concentric Circles* report).
  - **Gravel grinding:** encompasses a fairly broad sweep of riding activity but pertains mainly to long distance day rides, most often 100km+, that seek out back country, dirt and fire track roads with little to no traffic.
  - **Bike packing / back country touring:** is about exploring remote places via single track trails, gravel and abandoned dirt roads. Daily distances tend to be shorter for backcountry rides (40-50km) and with stops to admire vistas and eat at the country bakery. Bike packing is all about slow travel exploration. Bike packers often stay at B&B's, hotels, motels and caravan parks and eat out at cafés and restaurants.

  The trail offers a product that does not fall neatly into either of these two types of adventure cycling; rather it offers elements appealing to both groups. The trail will partially appeal to these groups though the Orange route is more likely to appeal to dedicated cyclists.

  The trail may satisfy an existing demand for walk trails to a lesser extent. There is an existing general demand for bushwalking trails in Australia (for domestic and international visitors). **Between 2016/17 and 2020/21, bushwalking saw a 66% increase from 1.252 million people/year on a bushwalk to 2.077 million/year** (*WA Strategic Trails Blueprint 2022-2027*). It is not reasonable to assume that a walk trail between Beverley and Narrogin primarily along the highway and road system will have the same appeal as the iconic long distance trails mentioned above. However, the survey indicates some demand (more for sections or loop trails out of each town).

- **Opportunities to provide more local trails.** The Beverley Narrogin Transport Trail will have the added benefit of providing a local trail for local people. A trail constructed alongside the railway reserve would provide a local trail to be used by local people on a regular basis.

- **Opportunities to provide trails for existing and new visitors.** The *Pingelly Mountain Bike and Cycling Strategy 2022-2026* identifies a series of actions which the Shire believes will position Pingelly as the Trails Centre for the region by delivering a series of trails aimed at the 'cruiser market' – families on holidays who incorporate cycling as part of that holiday. The strategy notes that outlying trails (which the Beverley Narrogin Transport Trail would be) are essential to attract visitors (as opposed to short in-town trails).



Examples of promotional material for various gravel riding events in WA. The Orange Route in particular offers the opportunity to host such events.

- **Business development.** There are a range of business opportunities for private sector investors arising from the potential development of a trail. Providing accommodation, food and beverages, supported and guided tours and equipment, are some of the businesses that have arisen along other trails.

- **Attracting new visitors and encouraging existing visitors to stay longer.** A trail has some potential to assist in keeping existing visitors longer in the area and potentially attract new visitors. Australians are increasingly looking for passive, non-organised recreation opportunities, often in natural or near-natural settings. Demand for this type of opportunity will only increase as the population ages. While walking remains the most popular of these activities (and is likely to remain so as the population ages), off-road cycling shows a growing and often unmet demand within the trails market. The advent of e-bikes will only accelerate the popularity of cycling on trails. Electric and power assisted bikes (e-bikes) represent one of the fastest growing segments of the bike industry, as they allow riders to extend their cycling distances. Australian e-bike sales have just recorded their fourth consecutive year of rapid growth. For the 2019–20 financial year sales were 48,000 units, up almost 50% from 32,500 units sold in 2018–19.

Vacant Crown Land over the Avon River provides opportunity for trail construction of the Green Route away from busy roads.

TRAIL IMPLEMENTATION

The Feasibility Study is one of the initial steps in the development of the proposed Beverley Narrogin Transport Trail. The fieldwork and other investigations carried out in the study have revealed a number of tasks that will need to be undertaken to progress the proposed trail through to fruition.

The Shire of Pingelly appears to have been the primary driver of this phase of work in partnership with the Shires of Beverley, Brookton, Cuballing and Narrogin (with funding provided by WA Department of Transport). The next primary tasks are to ensure all Councils formally agree to the trail proposal and then actively seek funds for future development of the trail. Other key tasks will be seeking funding for trail construction (and detailed planning as needed), and negotiating, leading and facilitating the formation of an appropriate management structure. These primary tasks are critical to the project's eventual success and will require human resources. In addition, should the trail proceed, there are a number of approvals and processes that will need to be followed.

It is therefore recommended that the Councils' alliance continue to take the lead role in the next phase of the project. The alliance will have developed a more detailed understanding of many of the issues and opportunities and are ideally placed to continue to facilitate future stages. Negotiations with Arc Infrastructure are also likely to be a key feature of the next stages of the project.

There are three key phases that the project needs to go through:

PHASE 1
Planning and development - from the decision to proceed to the opening of Section 1 of the trail.

PHASE 2
Establishment and operations - from the opening of Section 1 of the trail through completion of all stages to a period of 5 years full operation.

PHASE 3
Trail maturity - from 5 years after the opening of the complete trail.

Each phase will have a range of tasks and key stakeholders will have different roles in these different stages.

Memorandum of Understanding (MoU)

The trail, if built, will run through five Local Governments with varying interests and capacity. It would seem a Memorandum of Understanding between the five Councils may be the most appropriate method to manage the trail in the future. It is understood that in WA Memoranda of Understanding between Councils have been used in the past to manage cross-border issues. A typical MoU would cover:

- Statement of Purpose;
- Vision and Objectives;
- Principles;

- Scope of the MoU;
  - Resources
  - Issues to be addressed
  - Strategies to be adopted;
  - Implementation;
- Management structure and process;
- Dispute Resolution Processes;

Detailed Trail Design (Trail Development Plan)

Although this Feasibility Study provides more detail than simply indicative costs and possible solutions, there are sections of the proposed Green route where detailed trail development planning that seeks out solutions to all specific issues has not been undertaken (notably in the north). The Orange route does not present the same level of complexity or need for further planning.

Sourcing Funding

Once the decision is taken to proceed with the implementation of the proposed trail, it will be prudent to start the process of finding construction funding. All funding sources available at that time will need to be identified and funding applications prepared as soon as possible. Funding programs often change and are subject to review.

The project costs shown above include a 5% allowance for project management and 2.5% allowance for approvals and further design. Successful funding applications will need to include this element to ensure the project can be undertaken in an efficient and co-ordinated way.

Staging of Investment

Development of trails can often be staged so that parts of trails are developed in line with available funding sources. It is often not possible to open the full length (i.e. all stages) of a trail simultaneously as significant physical, financial, community and institutional work needs to be undertaken. This is the case in many recreational trails around Australia. Opening a new trail in stages also allows those who are opposed or undecided about a project to see a clear demonstration of its use and lack of issues (almost inevitably, problems identified by concerned people do not arise).

A staged approach to planning and development is often the best approach as it better suits the capacity of the entity charged with delivering the project.

Trail construction stages are determined by a number of factors:

- Trail sections anchored in trailheads (preferably near to major population centres).
- Trail sections enabling local people to use the facility for local walks and rides.
- Construct cheaper sections earlier than expensive ones (affordability). The cheapest section of the Green route (in terms of town to town) is from Popanyinning to Cuballing and the most expensive section is from Beverley to Brookton (even without considering necessary construction from Apex Park trailhead at Beverley to Caudle Road). The second cheapest is from Narrogin to Cuballing – adding

some weight to the argument below that building this section first can capitalise on the Narrogin Williams Rail Trail if it is built.

- Construct most attractive sections first.
- Probable economic impacts.
- Finished product logic.
- Ease of access for users.
- Ease of trailhead development.
- Capacity of the relevant local governments to deliver the trail section.

The consideration of staging is complicated by another two factors. The first factor is that – with one exception - each logical section covers two local governments. Beverley to Brookton is in two local governments; Brookton to Pingelly is in two local governments; Pingelly to Popanyinning is in two local governments; Cuballing to Narrogin is in two local governments. Popanyinning to Cuballing is the only logical section contained within one local government. The second complicating factor is the ongoing work at the northern end of the route between Beverley and Caudle Road. No detail has been provided for that section of the Green route because it is part of another process being undertaken by the Shire of Beverley.

The Orange trail is a relatively low cost trail at $252,655. The two local governments at either end (Beverley and Narrogin) have the lowest costs (each around $34,000) while the three local governments in the middle have similar costs though the Shire of Cuballing has the greatest cost at $76,000 (commensurate with the trail covering the longest distance in that local government area). Creating the Orange trail first delivers a "quick win". If the Orange trail route is to be developed in stages, the stages should be discrete and run from town to town rather than from town to the Local Government boundary. While the infrastructure would still exist if one local government did not develop the trail, it would be an unusual experience for a user to reach a local government boundary and find that trail directional markers suddenly stopped. However, the capacity to deliver this trail may be limited by the capacity of each individual local government so this undesirable situation may arise.

If funding is available and the trail manager believes they have the capacity to construct the entire trail in one stage (either or both routes), this can be done. Under this scenario, project management will be a very significant and major task. Care needs to be taken if this is the approach – short cuts in construction will manifest themselves in expensive repairs and refurbishment very quickly as has been the experiences on other trails.

However, construction of the Green trail route by section is likely to be required – it is an expensive project. Construction of the Green and Orange trails will eventually create a series of loop trails out of each town; this may be a factor to consider in the timing of stages.

Developing the connection from Narrogin to Cuballing as the first step in the Green route development would build on the Narrogin Williams Rail Trail if it was to be developed in the near future, thus extending the reach of the rail trail should it come to fruition.

Any timing of implementation will depend primarily on the individual council's capacity to raise funds (though it could be raised through one grant). While there are a large number of unknown factors such as how it is to be funded and the capacity and willingness of each Council to contribute to construction, Table 5 sets out a suggested delivery schedule for the trail with some reasons put forward. Connecting to other potential trails such as the Narrogin Williams Rail Trail (and any trails that may be developed north of Beverley) has merit in considering stages.

Table 5: Suggested schedule

Stage	Section	Distance	Cost
1	**Construct complete Orange route.** A relatively low cost option that can deliver benefits. **Green Trail – detailed design and approvals as needed.** N.B. provisions for design and approvals not included in cost listed in column 4.	213.3kms	$252,655
2	**Green trail – Construct Narrogin-Cuballing section.** Why? Shortest and cheapest section and builds on existing trails infrastructure within the Shire of Narrogin. However, negotiations with Arc Infrastructure about the maintenance track on public road reserve will take time. **Possible constraint** – the capacity of the Shire of Cuballing. Also depends on capacity of Shire of Narrogin if it is also developing Narrogin Williams Rail Trail.	16.4kms	$603,430
3	**Green trail – Construct Cuballing-Pingelly section.** Why? Next logical section though it is the longest section and builds on the drive of the Shire of Pingelly. **Construction over 2 (or more) years.** Pingelly-Popanyinning section could be the first section constructed though this would leave a "gap" but recognises the limitations of partners. **Possible constraint** – the capacity of the Shire of Cuballing.	33.7kms	$3,048,560
4	**Green trail – Construct Pingelly-Brookton section**. Why? Next logical section.	20kms	$1,990,310
5	**Green trail – Construct Brookton-Beverley section.** Why? Most expensive section. Also placed at end of construction timetable in recognition of other work Shire of Beverley may do relating to The Commonage Trail. This stage could also include design and approvals for the Green Trail at the Beverley end (from Caudle Road to Kokeby East Road) as it is more complex than design work further south. However, this work could be brought forward if other trails to the north of Beverley are constructed in the preceding years.	31kms	$3,223,005

An option that may be worth considering...

... given that the project partners want to appeal to local users and the cruiser market – is to proceed with the Orange route in the short term and develop short trail sections (up to 5kms) of the Green route on either or both sides of the 6 towns (including Popanyinning). This will significantly reduce the construction cost while offering a ride and walk opportunity for those identified groups. This work could take place progressively over time; some efficiencies in trail construction will however be lost (and this option is not reflected in the suggested schedule).

There has also been some discussion in the Project Working Group of building the trail slowly in terms of "trail finish" – the Green route could start out as a single track then be further developed as funding becomes available as a (recommended) 1,200mm – 1,500mm trail for shared use.

However, developing the trail as a single track may not meet funding criteria for Transport Trails (this is yet to be answered as there is no funding program specifically for Transport Trail projects). It may be possible to build the trail as wider sections for shared use some distance (say 5kms) north and south of each town then build it as single track in between in recognition of the 'cruiser market'; this has some merit but may not be eligible for construction funds for Transport Trails and may not save significant funds.

Whilst much of the Munda Biddi Trail is built as a single track, the appeal of this trail needs to be different (given it does not travel through the same scenically attractive landscapes as the Munda Biddi Trail or the Bibbulmun Track) and a shared use facility offers that point of difference. In addition, it cannot be assumed that building a single track would halve the trail clearing and construction costs compared with a shared use trail.

TRAIL FEASIBILITY STATEMENT

The proposed Beverley Narrogin Transport Trail is technically feasible. There are a number of issues that can be overcome with good design.

In order to establish whether the proposed trail is a feasible proposition, this Feasibility Study sought to answer several questions:

Is there a viable trail route?

Yes. The Orange route will use a network of scenic country roads – a combination of gravel (mostly) and sealed roads. The roads currently exist and the only work required is the placement of directional signs at intersections. The Green trail as proposed will need to be constructed primarily on land that is currently road reserve under the control of Local Governments. In some (limited) sections, the existing railway maintenance track may be able to be used as it has been developed on road reserve – this will require discussions with Arc Infrastructure. Using land within the Great Southern Highway road reserve will also be required in some locations. Consequently, new trail will need to be constructed for over 81kms of the proposed Green trail's route.

Will the trail provide a quality user experience? (Terrain/landscape/history)

Yes - though the quality of landscapes on offer will differ. The Orange route offers varied vistas (in both the near and far visual field) offering trail users "up close and personal" interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant hills are attainable along sections of the roads, while also on offer is the opportunity to ride through Dryandra Woodland National Park on a constructed road. The Green route (running primarily along the Great Southern Highway and the railway) offers less attractive scenery although there are sections that will be quite attractive. The northern section (Beverley to Brookton) offers riverside walking and riding for much of its route and along scenic country roads into Brookton. Good trail design along other sections may leave a band of trees between the trail and the less aesthetically pleasing aspects of the trail route

Is there a market for the proposed trail?

Yes. The existing visitor market primarily consists of overnight trips. The survey indicated a level of demand for the trail from residents of the Wheatbelt (who would primarily use the Green route in sections or loops). Visitors from the Perth metropolitan area will either also use the trail in sections or as loops (it is expected that these users will be drawn primarily from the 'cruiser' market) or undertake the trail from end to end (and return in many case) using a combination of the Orange and Green routes.

Will the trail create any unmanageable or unmitigated impacts on adjoining landholders' farming practices and lifestyles?

No. The Orange route is on existing public roads. Despite claims made during the consultation process, the use of this route does not create new issues (it is acknowledged that it may increase some existing issues given the promotion and use of the route). The Orange route has been amended from that promoted

during consultation to take into account expressed concerns about heavy vehicle traffic on some sections – there is however no on-road alternative to Bremner Road south from Beverley (in time, the Green route from Beverley trailhead to Kokeby East Road may become the preferred route for all cyclists). On the Green route, the section between Beverley and Kokeby East Road is the only major section of the trail passing adjacent to farmland that is not adjacent to a public road. There are also relatively short sections of the trail (immediately north of Brookton and immediately north of Cuballing) where the trail is recommended to be built on road reserve which passes through private property. Landholders may raise issues (this route was not canvassed in the Open Houses or during the on-line survey period) but the issues and concerns likely to be raised by adjoining landholders have been satisfactorily addressed in the other trails around Australia. Evidence shows no long-term negative impacts on farming practices and lifestyles. In consultation, adjoining landholders raised some concerns. It is believed that these issues can be satisfactorily addressed, managed or mitigated if the trail proceeds. It is important to recognise landholder concerns and, if the trail proceeds, to work closely with them to address individual concerns and arrive at mutually agreed solutions. In some other sections, landholders have been cropping the road reserve. Trail development will necessitate the re-calibration of the existing road boundaries – these landholders may be required to forego using the road reserve.

Is the local government and key stakeholders supportive of the concept?

The five Local Governments contributed to the study (and the study process through the Project Working Group). Councillors who attended the Open Houses (held during August 2025) expressed support for the project – this is only informal support. The completion of the Feasibility Study will provide a milestone which will allow the Councils to more fully understand the project and formally support it if that is their position.

Are there supportive/strong advocates in the community?

No strong advocate or advocate groups came forward during the consultation. Cycling groups in Narrogin did express support in consultations.

Is there a supportive community?

Yes. The survey showed strong support for the project across the respondees. All those who attended the five Open Houses expressed support for the project. One formal submission opposing elements of the project was received during consultation (and there were some negative comments that returned with the survey).

Would the trail be value for money?

This cannot be answered definitively. Trails repeatedly demonstrate that there are numerous benefits to be gained through their construction: economic benefits to the towns where they start and finish – a boost to businesses associated with the trail; social and physical health benefits; and a range of environmental and cultural benefits. This proposed trail is a relatively high cost trail (primarily due to the distance and some of the difficult issues encountered). Use scenarios and possible numbers of users means that, for an investment of just over $9 million, there will be an opportunity for users to traverse a trail offering two routes and loops around each of the main towns and villages of the region. In summary, it can be reliably anticipated that development of the proposed trail will result in increased annual visitor numbers of 5,000 who will inject $1.779 million/year into the region's economy. Local use rates of 7,285 people/year will see the injection of $19,450 into the region's economy. There will also be several non-quantifiable benefits also arising to members of the communities around the trail as well as further afield.

Is there a commitment to maintenance? ("friends of ..." group or support network)

This has not been explored. The experience of other trails indicates that individuals and community groups (such as Landcare groups, school groups, service clubs, etc.) will help to maintain sections of the trail, or areas through which the trail would pass.

Will the trail provide a unique experience?

Yes. There are limited long distance trails in the Wheatbelt and limited cycle touring routes. Some of the towns through which the trail passes offer (and propose) shorter walk and cycle trails. However, it should be borne in mind by the proponents that this trail is not a Bibbulmun Track or Munda Biddi Trail offering a long distance trail through areas of magnificent scenery. Building it as a "Transport Trail" allowing side by side riding (similar to a rail trail) will offer some differentiation to other trails. If – as the Chief Executive Officer of the Shire of Pingelly is advocating – the trail becomes part of a much longer trail connecting Perth to Bunbury, this section will be a small (but important) part of that long distance trail.

Is there a demonstrated benefit to trail users and, especially, the host communities?

Yes. This question has been answered partially in answers to other questions posed. The demonstrated benefits come in the form of economic and non-economic benefits that will accrue to both users and host communities (with the creation of a range of economic opportunities arising from the development of the trail).

REFERENCES

- Shire of Pingelly *Pingelly Mountain Bike and Cycling Strategy 2022-2026*
- TRC (2024) *Concentric Circles Guidance for Trails Tourism Close to Perth*
- WA Department of Transport (2023) *Avon Central Coast 2050 Cycling Strategy*
- WA Trails Reference Group *WA Strategic Trails Blueprint 2022-2027*
- West Cycle Incorporated *WA Mountain Bike Strategy: Mountain Biking and Off-road Cycling in WA 2022-2032*
- Wheatbelt Development Commission (2023) *Wheatbelt Regional Tourism Development Strategy 2023-2033*

APPENDIX 1

Plans for the Proposed Beverley Narrogin Transport Trail

Beverley to Narrogin Transport Trail

Plan 1 - Shire of Beverley

November 2025

Proposed Beverley to York Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Beverley

Proposed Beverley to Avondale Farm Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Trailhead (Apex Park)

Lukin Street

Waterhatch Rd

Shire of Beverley

Trail should use the proposed Commonage Trail when developed (detailed route planning and detailed cost estimates by others)

Proposed river crossing on Commonage Trail

Connection along public road reserve to proposed Commonage Trail will create a loop trail

Beverley Westdale Rd

Green route uses Vacant Crown Land (and other categories of reserves) along Avon River between Caudle Rd and Kokeby East Rd

Avon River

Bremner Rd

Proposed County Peak and Ski Lake Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Kokeby East Rd

See plan in report for details of proposed trail route through VCL and other reserves along Avon River south of Beverley

Road crossing of Kokeby East Rd

Kokeby

Patten Rd

Proposed County Peak and Ski Lake Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Trail construction required along eastern verge of Great Southern Hwy (approx. 3,000m)

Yenyening Lakes Rd

Road crossing of Yenyening Lakes Rd

Road crossing of Southern Branch Rd

Dale Kokeby Rd

Road crossing of Great Southern Hwy

Southern Branch Rd

Trail construction required along western verge of Great Southern Hwy (approx. 1,800m)

Crossing of railway (on existing controlled crossing)

Trail construction required along road reserve (west side of railway - 4,300m)

Location of existing road crossing of railway on Youraling Rd

Trail construction required along western verge of Youraling Rd (where possible - approx 3,100m)

Great Southern Hwy

Dale Corberding Rd

McGrath Rd

Roses Rd

Road crossing of Youraling road, McGrath Rd and railway (on existing crossing)

Youraling Rd

Trail construction required along road reserve (east side of railway - approx. 5,400m)

Shire of Brookton

Some of road reserve being cropped

Avon River

Bilya Rise

Brookton Corri

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

0 2 4

kilometres

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Shire of Beverley

Shire of Brookton Growing the Future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin

Dale Kokeby Rd

Road crossing of Great Southern Highway

Trail construction required along western verge of Great Southern Highway (approx. 1,800m)

Tenyening Lakes Rd

Southern Branch Rd

Crossing of railway (on existing crossing)

Trail construction required along road reserve (west side of railway - approx. 4,300m)

Location of existing road crossing of railway on Youraling Rd

Trail construction required along western verge of Youraling Rd (where possible - approx. 3,100m)

Great Southern Hwy

Dale Corberding Rd

200m boardwalk required

McGrath Rd

Roses Rd

Road crossing of Youraling road, McGrath Rd and railway (on existing crossing)

Youraling Rd

Trail construction required along road reserve (east side of railway - approx. 5,400m)

10m bridge required (Avon River)

Some of road reserve being cropped

Avon River

30m bridge required (Avon River)

Brookton Corrigin Rd

Road crossing of Great Southern Highway (within Brookton)

Shire of Brookton

Brookton

Trailhead (near old station)

Yeo Rd

Road crossing of Great Southern Highway and crossing of railway (on existing crossing - Yeo Rd)

Road crossing of Great Southern Highway and crossing of railway (on existing crossing) within Brookton

Brookton Hwy

Hall Rd

5m armoured crossing required (Wabbing Creek)

Great Southern Hwy

20m boardwalk required (Glenester Brook)

Copping Rd

Some of road reserve being cropped

Walwalling Rd

15m boardwalk required (Avery Brook)

Trail construction required along road reserve (east side of railway - Yeo Rd to Kulyaling - approx. 9,400m)

McCabe Rd

2 x 25m boardwalks required (Keelocking Creek)

10m boardwalk required

Kulyaling Rd

Road crossing of Great Southern Highway and railway (on existing crossing)

Kulyaling

Trail construction required along road reserve (west side of highway - approx. 3,000m)

Lamard Rd

Ford Rd

200m boardwalk required (Nimbediling Ck)

Shire of Pingelly

Road crossing of Great Southern Highway and railway (on existing crossing)

See plan in report for reccommended route into and through Brookton.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

0 2 4

kilometres

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Beverley to Narrogin Transport Trail

Plan 2 - Shire of Brookton

Shire of Beverley

Shire of Brookton
Growing the Future

Shire of Pingelly

SHIRE OF CUBALLING

Shire of Narrogin

Brookton

Trailhead (near old station)

Road crossing of Great Southern Highway and railway (on existing crossing - Yeo Rd)

5m armoured crossing required (Wabbing Creek)

20m boardwalk required (Glenester Brook)

Some of road reserve being cropped

15m boardwalk required (Avery Brook)

Trail construction required along road reserve (east side of railway - Yeo Rd to Kulyaling - approx. 9,400m)

2 x 25m boardwalks required (Keelocking Ck)

10m boardwalk required

Road crossing of Great Southern Highway and railway (on existing crossing)

Trail construction required along road reserve (west side of highway - approx. 3,000m)

200m boardwalk required (Nimbediling Creek)

Road crossing of Great Southern Highway and railway (on existing crossing)

Trail construction required along road reserve (east side of railway - approx. 4,400m)

Road crossing of Review St (within Pingelly)

Road crossing of Brown St (within Pingelly)

Road crossing of Great Southern Highway and railway (on existing crossing) within Pingelly

Trailhead (Pioneer Park)

Pingelly

Road crossing of Great Southern Highway

Trail to be constructed along western verge of Great Southern Highway (approx. 1,500m)

100m boardwalk required

Road crossing of Great Southern Highway and railway (on existing crossing)

10m bridge required (Mongebin Gully)

Trail construction required along road reserve (east side of railway - Thompson Rd to Treforts Rd - approx. 2,000m)

10m boardwalk required (Thompson Brook)

2 x 10m bridges required (Hotham River)

Trail construction required along road reserve (east side of railway - Treforts Rd to Popanyinning - approx. 9,800m)

Existing Heritage Trail

Moorumbine

Shire of Brookton

Shire of Pingelly

Hall Rd

Copping Rd

Walwalling Rd

McCabe Rd

Great Southern Hwy

Yeo Rd

Kulyaling Rd

Bassendean Rd

Kulyaling

Lamard Rd

Ford Rd

Moorumbine Rd

Aviation St

Pingelly Rd

Wickepin

Old Wickepin Rd

Yenellin Rd

Thompson Rd

Zig Zag Rd

Treforts Rd

Hotham River

Karping Rd

Merwanga Rd

See plan in report for reccommended route into and through Pingelly.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

0 2 4

kilometres

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Beverley to Narrogin Transport Trail

Plan 3 - Shire of Pingelly

Shire of Beverley

Shire of Brookton
Growing the Future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin

Trail construction required along road reserve (east side of railway - Thompson Rd to Treforts Rd - approx. 2,000m)

Treforts Rd

Karping Rd

Hotham River

Merwanga Rd

10m bridge required (Thompson Brook)

Great Southern Hwy

2x10m bridges required (Hotham River)

Trail construction required along road reserve (east side of railway - Treforts Rd to Popanyinning - approx. 9,800m)

Williams Rd

120m boardwalk required (unnamed creek)

Popanyinning

Road crossing of Great Southern Highway and railway (on existing crossing)

Popanyinning Rd West

Existing crossing of railway.

Trail construction required along road reserve (west side of railway - Popanyinning to Yornaning - approx. 8,900m)

Shire of Cuballing

Forestry Rd

Dents Rd

6m bridge required (Candy's Creek)

Existing crossing of railway

Existing armoured crossing (Hotham River South)

Yornaning Rd

Yornaning

10m boardwalk required (South Hotham River)

Great Southern Hwy

Dryandra Woodland National Park

Trail construction required along road reserve (west side of railway - Yornaning to Watsons Rd - approx. 7,000m)

Johnston Rd

Fill and pipes required (Watsons Brook)

Road crossing of Great Southern Highway and railway (on existing crossing)

Knights Lane

Cuballing

Hwy

Trail construction required along eastern verge of Great Southern Highway (approx. 840m)

Watsons Rd

Road crossing of Cuballing East Rd

Road crossing of Cuballing St

Trailhead (Community Park)

Cuballing West Rd

Wandering Narrogin Rd

Springhill Rd

Trail construction required along road reserve west side of railway (approx. 2,900m)

Road crossing of Great Southern Highway and railway (on existing crossing)

Roadside single track trail required (approx. 850m)

Chungamunning Rd

Road crossing of Chungamunning Rd and railway (on existing crossing)

Patmore Feeds

Trail construction required on western verge of Great Southern Highway (approx. 1,600m)

Trail construction required along road reserve (west side of railway)

Crossing of railway (on existing crossing)

Nebrikinning Rd

Existing crossing point of railway

Curtis Rd

0 2 4

kilometres

See plan in report for reccommended route into and through Cuballing.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

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Beverley to Narrogin Transport Trail

Plan 4 - Shire of Cuballing

Shire of Beverley

Shire of Brookton
Growing the Future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin

Shire of Cuballing

Trail construction required along road reserve (west side of railway - Popanyinning to Yornaning - approx. 8,900m)

Dents Rd

6m bridge required (Candy's Creek)

Existing crossing of railway

Existing armoured crossing (Hotham River South)

Yornaning

Yornaning

10m boardwalk required (South Hotham River)

Great Southern Hwy

Dryandra Woodland National Park

Fill and pipes required (Watsons Brook)

Trail construction required along road reserve (west side of railway - Yornaning to Watsons Rd - approx. 7,000m)

Johnston Rd

Road crossing of Great Southern Highway and railway (on existing crossing)

Knights Lane

Cuballing

Watsons Rd

Trail construction required along eastern verge of Great Southern Highway (approx. 840m)

Road crossing of Cuballing East Rd

Cuballing West Rd

Wandering Narrogin Rd

Trailhead (Community Park)

Trail construction required along road reserve west side of railway (approx. 2,900m)

Springhill Rd

Road crossing of Great Southern Highway and railway (on existing crossing)

Roadside single track trail required (approx. 850m)

Chungamunning Rd

Road crossing of Chungamunning Rd and railway (on existing crossing)

Patmore Feeds

Trail construction required along road reserve (west side of railway - approx. 2,300m)

Trail construction required on western verge of Great Southern Highway (approx. 1,600m)

Existing road crossing of railway

Nebrikinning Rd

Pritchard Rd

Existing crossing point of railway

Curtis Rd

Great Southern Hwy

Farrelly Rd

Trail to be located on existing road on west side of railway south of Farrelly Rd

Higham Rd

Congelin Narrogin Rd

Existing road crossing of Farrelly Rd

Shire of Narrogin

Junction with Golf Course Pde

Existing crossing of railway (within Narrogin)

Road crossing of Clayton Rd (within Narrogin)

Road crossing of Federal St (within Narrogin)

Narrogin

Trailhead (Narrogin Visitor Centre)

Williams Narrogin Rd

Potential for connections further west, including to Collie Darkan Rail Trail

Proposed Narrogin Williams Rail Trail

0 2 4

kilometres

See plan in report for reccommended route into and through Narrogin.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

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Beverley to Narrogin Transport Trail

Plan 5 - Shire of Narrogin

Bilya Rs

Bridge required
over Avon River

Youraling Rd / McGrath St

Corberding Rd

Brookton Highway

Koorrnong Dr

Great Southern Highway

Road crossing
(Great Southern Highway)

Robinson Rd

Proposed trailhead (near old station)

Brookton

Crossing of railway
(on existing crossing
within Brookton - Robinson Rd)

Road crossing
(Great Southern Highway)

Tiller St

King St

Great Southern Highway

White St

Road crossing
(Great Southern Highway)

Yeo Rd

Crossing of railway
(on existing crossing
within Brookton - Yeo Rd)

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Beverley to Narrogin Transport Trail

Plan 6 - Route through Brookton

Aviation St

Marconi St

Review St

Road crossing of
Review St (within Pingelly)

New trail through
reserve/open space

Road crossing of Brown St
(within Pingelly)

Road crossing of Great Southern
Highway and crossing of railway (on
existing crossing) within Pingelly

Brown St

Park St

Parade St

Trailhead
(Pioneer Park)

Sharow St

Bodey St

Pingelly

Existing road crossing
of Sharow St
(within Pingelly)

Quadrant St

Pitt St

Phillip St

Yenellin Rd

Road crossing of Great
Southern Highway

Paragon St

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Beverley to Narrogin Transport Trail

Plan 7 - Route through Pingelly

Watsons Rd

Road crossing of Great Southern Highway and crossing of railway (on existing crossing)

Trail construction required along eastern verge of Great Southern Highway (approx. 840m)

Unconstructed road reserve

Corrie St

Cuballing St

Road crossing of Cuballing St

Carton St

Russell St

Road crossing of Cuballing East Rd

Cuballing East St

Derby St

Trailhead (Community Park)

Campbell St

Alton St

Trail follows existing paths along east side of Great Southern Highway

Darcy St

Road crossing of Great Southern Highway and crossing of railway (on existing crossing)

Springhill Rd

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November 2025

Beverley to Narrogin Transport Trail

Plan 8 - Route through Cuballing

Golf Course Parade
Hillside Rd
Junction with
Golf Course Pde
Great Southern Hwy
Earl Street North
Road crossing of Clayton Rd
(within Narrogin)
Kipling St
Clayton Rd
Federal St
Existing crossing
of railway
(within Narrogin)
Williams Rd
Road crossing of Federal St
(within Narrogin)
Trailhead
(Narrogin Visitor Centre)
Narrogin
Forrest Rd
Herald St

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November 2025

Beverley to Narrogin Transport Trail

Plan 9 - Route through Narrogin

BEVERLEY NARROGIN TRANSPORT TRAIL

Volume 2: FEASIBILITY STUDY

NOVEMBER 2025

PREPARED FOR:

Shire of Beverley

Shire of Brookton
Growing the future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin
Love the life

PREPARED BY:

Mike Halliburton Associates
Trail Consultants

TRANSPLAN PTY LTD
Planning and Design

CONTENTS

SECTION 1 : INTRODUCTION AND BACKGROUND

1.1 The Purpose of the Feasibility Study

The primary purpose of the Feasibility Study is to determine whether a 105km 'Transport Trail' between Beverley and Narrogin is practically possible and whether its potential development is a worthwhile proposition.

1.2 Background

The proposed Beverley to Narrogin Transport Trail is a proposed 105km trail providing a long-distance off-road cycling and walking experience through natural settings connecting the towns of Beverley, Brookton, Pingelly, Cuballing and Narrogin.

The WA Department of Transport, in its various 2050 Cycling Strategies (such as the *2050 Avon Central Coast Cycling Strategy*), defines Transport Trails as: *"long-distance, predominantly unsealed trails which are typically used to connect towns. Unlike downhill mountain biking trails, transport trails are non-technical in design. While there will be some level of crossover, transport trails provide users with a more passive bike riding experience.*

In some cases, transport trails cater for other types of users including bushwalkers, trail runners and horse-riders. On such trails, it is essential that paths are managed appropriately to ensure the safety and satisfaction of all user groups.

In terms of their built form, transport trails should ideally be wide enough to allow two people to ride comfortably side-by-side. As they are often located in remote locations, it is important that extensive wayfinding signage is used to direct users to, from and along the route.

Transport trails are often constructed along the alignments of disused or closed railways, watercourses (such as rivers, drains and irrigation channels), utility corridors (such as electricity, gas or water supply), as well as fire breaks and other tracks through forested areas including nature reserves and national parks."

Perhaps the greatest advantage of transport trails – according to the Department of Transport - is that they can provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. They often support recreational and tourism trips between towns and regions. Transport trails provide opportunities for longer tourist rides that can be marketed as inclusive itineraries, individual journeys of discovery or providing connections between smaller locations.

The brief for the project indicates the proposed Beverley Narrogin Transport Trail would form a strategic link in the regional trails network by:

- Directly connecting the towns of Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin;
- Connecting the transport trail to planned trails within the Shire of Beverley;
- Eventually linking to York, Northam, Toodyay and the Perth Hills from Beverley;
- Connecting to a planned rail trail from Narrogin to Williams; and
- Linking Dryandra National Park (a planned primary regional trail destination) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

This approach (as specified in the brief) suggests that the trail is being viewed as a regional facility to attract a range of users from across south western WA (and further afield).

The proposed trail also has the potential to make connections, and therefore much longer trail experiences, by joining up with proposed trails in the Avon Region, and with the established and proposed trails network in and around Collie.

1.3 The Current Situation

The project partners - the Shires of Beverley, Brookton, Pingelly, Cuballing and Narrogin - were successful in receiving funding from the WA Bicycle Network Grants program to undertake the Feasibility Study.

During the Feasibility Study preparation, the Chief Executive Officer of the Shire of Pingelly undertook media interviews promoting the trail as a trail that could form part of the longest walking and cycling continuous loop trail in Australia. Media that covered this story included ABC Great Southern radio and the West Australian newspaper.

Some short sections of public road reserves are used as the maintenance track for the railway.

Most of the railway maintenance track cannot be used for the proposed trail.

An on-road cycling route between Beverley and Narrogin using scenic backroads has been recommended.

SECTION 2 : THE SCOPE OF WORK

The brief indicates that the Shire of Pingelly, in conjunction with the Shires of Beverley, Brookton, Cuballing, and Narrogin, is seeking to develop concept plans and detailed design (and cost estimates) for the Beverley to Narrogin Transport Trail project.

The trail feasibility study will provide sufficient detail to determine whether the trail has merit. Feasibility is determined by an analysis of several factors. It is not just the cost of the project, but a combination of several factors, which determines trail feasibility. In considering trail feasibility, the costs of construction need to be weighed against the benefits (direct and indirect) that such a trail brings.

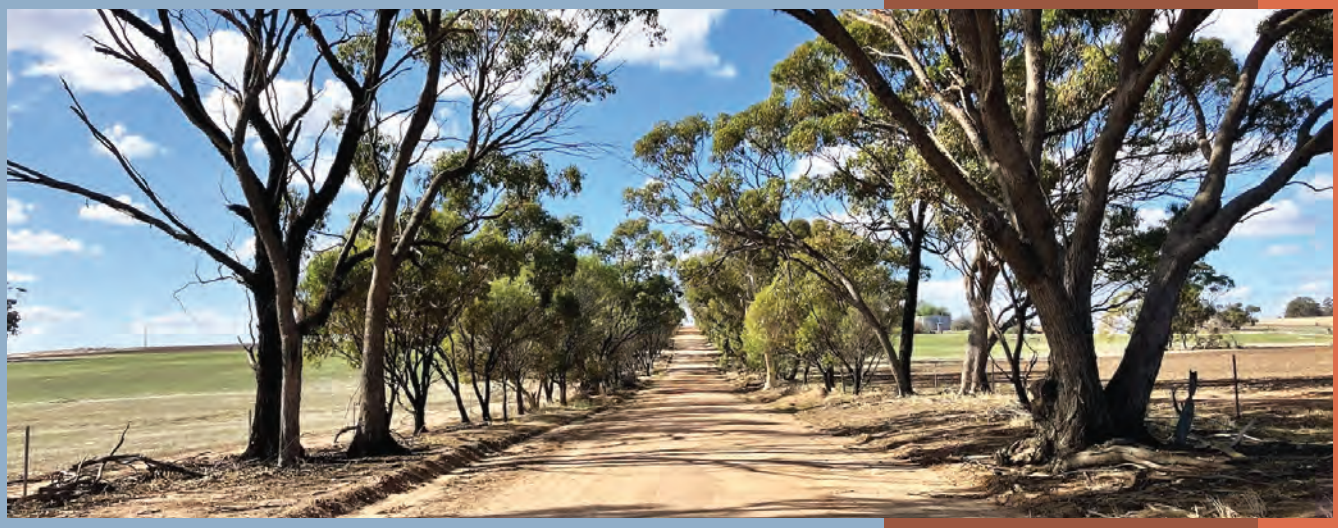
The Feasibility Study should seek to answer several questions:

- **Is there a viable trail route** (i.e. is a trail route physically possible)**?**
- **Are there areas where a trail may be prohibited by the land manager or precluded by existing infrastructure and activities incompatible with a trail?**
- **Is there a market for the proposed trail** (i.e. local people and visitors who will be attracted to use it)?
- **Are the local governments and key stakeholders** (including land managers) **supportive of the concept?**
- **Are there supportive/strong advocates** (in the community)**?**
- **Is there a supportive community?**
- **Will the trail provide a quality user experience** (terrain/landscape/history)**?**
- **Would the trail be value for money?**
- **Is there a commitment to the ongoing maintenance of the trail** ("friends of …" group or support network)**?**
- **Will the trail provide a unique experience?**
- **Is there a demonstrated benefit to trail users and, especially, the host communities?**
- **Are the landowners and neighbours supportive?**
- **Will the trail create any unmanageable or unmitigated environmental impacts?**
- **Does the proposed trail connect towns or other activity centres?**

One of the first phases in determining feasibility is examining the various factors that influence the practicality of building a trail. Some of these factors will make construction difficult and/or expensive. These factors can be grouped under "issues and challenges" or "opportunities". Some issues that may impact negatively on the proposal can of course be resolved through design, negotiation or by the spending of funds to mitigate the problem. Other issues are more difficult to deal with.

Whilst a feasibility study provides a level of detailed costing, it does not provide the fine level of detail for a construction ready project. This is the role of the trail development plan (unless there are unusual circumstances) which is carried out if the trail is found to be feasible and key stakeholders are willing to proceed to the next stage.

The "Green" route crosses a number of significant watercourses, including the Hotham River.



The scenic backroads will attract cycle tourists to the region.

SECTION 3: THE STUDY PROCESS

3.1 Project Working Group (PWG) Meetings

Several meetings were held at critical points in the process between the Project Working Group (made up of representatives of the five local governments – the project partners) and the consultants. Notes of all meetings are included in Appendix 1.

3.1.1 Inception Meeting (May 2025)

The inception meeting set out the schedule for the project, clarified the methodology, provided the consultants with relevant information and reports (or alerted the consultants to their existence), clarified the consultation process, and discussed possible locations for trailheads in each of the towns and villages along the route. In addition, the PWG and the consultant discussed the philosophy that the Transport Trail should be considered as a component of a much longer future trail (connecting to Collie and beyond via the existing and proposed rail trails, and new trails projects to the north of Beverley) potentially connecting to Bunbury to the south west and to Perth to the north west. The potential name of the trail and future branding of the trail, trail logo etc. was raised and the PWG agreed to consider the naming of the trail (noting this was not included in the brief).

3.1.2 Post Fieldwork Meeting (June 2025)

The second meeting was held at the end of the first round of fieldwork and provided an overview of the consultant' initial thoughts on trail routes as well as a number of procedural matters. The critical issue was the consultants' view that a route that closely followed the railway and the Great Southern Highway was potentially not achievable for a number of reasons. Notable amongst these reasons was the need to construct quite significant lengths of new trail as the railway maintenance track (which was initially thought to be the best option) was not available to be used given the likely attitude of the corridor owner, Arc Infrastructure. An alternative route (presented as the Orange route – see plans in Appendix 4) utilising scenic country back roads and aimed at cycle tourists was put forward as a better option to deliver a trail between Beverley and Narrogin.

The PWG acknowledged the appeal of the Orange trail to a certain market but had the consensus view that the Beverley Narrogin Transport Trail will be designed for a particular market whose needs are better addressed by the teal trail (or what became the Green trail).

Provision of both trail routes (Orange and teal) would benefit the maximum number of potential users. Creating the Orange trail first delivers a "quick win"; construction of the teal trail section by section is required. Staged construction could also create a series of loop trails out of each town.

The PWG issued some key directions for the consultants to be aware of in the next stage of work for the project:

- The teal cycle and walk trail is to be entirely within existing road reserves: where the existing maintenance track is in road reserve, it can be used. Otherwise new trail will need to be built;
- From the consultants' preliminary examinations, some of ARC Infrastructure maintenance track is in road reserve rather than railway reserve; and

- If there are identified gaps between road reserves, the relevant local government will "negotiate" with the relevant landholder to ensure a connection.

3.1.3 Interim Report Meeting (July 2025)

An Interim Report was prepared for the project partners in July 2025 and was presented to the PWG at its third meeting. The consultants noted that the main task arising from the previous meeting was to work out how much of the maintenance track is on railway reserve and how much is on public road reserve. The conclusion was that to have a trail paralleling the highway and railway will be a very expensive project noting that some 80kms of new trail will need to be built in road reserve.

The PWG Chair indicated that the Interim Report provided a good summary of where the project investigation has got to. He believed that – at the previous meeting – all project partners had come to a possible agreement that the local governments should pursue both trail routes (Green and Orange). In summary, the Green route should proceed with loops out from each town between Beverley to Narrogin.

PWG members indicated they were not daunted by the high cost of the trail. They agreed that the local governments would not be funding the trail construction but would rather seek grant money to do so. The PWG noted that if they had a plan, they could work towards finalising the trail over time.

There was discussion about whether a staged approach may be the best way to develop the project. This could consist of "we definitely need to do these bridges initially then we build on that work and so on till the complete trail (Orange and Green routes) are finished'. Factors to be considered in determining the stages could include land tenure (build point to point sections with no tenure issues first) and the difficulty and expense of constructing the stage. It was suggested that developing the Green trail out of Narrogin would be the obvious first stage (of the Green route) given the recommended trail route would be located on a significant portion of road reserve (the railway maintenance track is mostly on road reserve in this location).

The group acknowledged that there will be different target groups for the Orange and Green trails.

It was agreed that the routes are subject to community consultation – comments on the Orange route and the Green route were to be sought through that process.

Typical conditions along many of the roads along the "Orange" route.

The other critical matter discussed and resolved at the third meeting was the issue of horse riding on the proposed trail. The Shire of Beverley had received two requests from horse riding groups about using any proposed trail. These requests had been passed onto the consultants. The consultants sought the views of the PWG as to whether horse riding was to be permitted, noting that horse riders can already use the Orange route (whether they choose to or not is another issue). There was general agreement that horses are not to be provided for on the trail with the possible exception of sections in Cuballing.

3.1.4 Post-survey Meeting (September 2025)

The fourth meeting of the PWG was held to discuss the survey results as the survey was closed on 3 September. The other matter of significance at the meeting related to a possible new route option on Vacant Crown Land along the Avon River in the Shire of Beverley.

3.1.5 Draft Report Meeting (October 2025)

A draft feasibility report was prepared for the project partners in September 2025 and was presented to the PWG at its fifth meeting. The discussion focussed on elements of the route at the northern end (within the Shire of Beverley), the suggestions of spur routes into Pingelly and Cuballing on the orange route (which have now been removed at the request of the PWG) with the orange route now going directly into these two towns, and some minor corrections to the route around Yornaning (based on information that the CBH bins are no longer operational). There was also discussion about the presentation of the report with the PWG noting that the report in the format presented was what had been done and found rather than what was the way forward. It should be noted that only two Councils were present at the meeting (Pingelly and Beverley) while the Shire of Narrogin had provided some written comments.

3.2 Broader Consultation

There were three broad elements to the consultation program:

- Open Houses (i.e. drop-in sessions) conducted in August 2025;
- Provision of a survey through the Councils' websites and on published material website; and
- Direct consultation with a number of key stakeholders either in person or on the phone.

The first two elements are discussed in detail in Section 4. In terms of the third element, a number of interested parties were consulted during the study process. The following people and organisations had input to the study:

- The consultant who had a significant role in developing the various regional cycling strategies in regional WA (although not the one of direct relevance to this study). Of interest was the origin of the term "Transport Trail" which the consultant was not able to explain as it pre-dated his involvement. He indicated that he believed that the term originated within the Department of Transport so that the Western Australian Bicycle Network Grants Program could be used for such projects. A transport trail will be a different "route" or facility, and potentially different set of users, depending on location and desires of the proponent. He indicated that Transport Trails are primarily designed as regional facilities.
- As part of the initial consultation process, advice was sought from the Public Transport Authority of WA about the possible use of the railway corridor for the trail. An email requesting advice was forwarded to several key people within the PTA. The following advice (summarised) was received from the Manager, Rail Freight Infrastructure:

"Arc is permitted to licence Corridor land to Local Government Authorities for Civic Purposes which allows for this use. ***For safety reasons (and this is a relatively active line), Arc's maintenance /access tracks are not available for shared used by recreational users (emphasis added).***

Should the corridor be wide enough for, and land available to construct a separate rail trail (that does not require Arc to reduce their track or impede their operations) then Arc may consider it. Arc will very likely require fencing to be installed to separate the rail trail from the access track if land is available. Arc has high public liability insurance requirements (up to $250 million).

With Arc approval, PTA could lease to the LGA's however Arc's requirements would be carried over, such as fencing."

- The consultants had a meeting with the Shire of Pingelly Noongar Group to provide a project briefing. Discussions covered whether there were any registered Aboriginal cultural sites along the proposed routes particularly along the rivers (or other culturally significant sites and areas), how best to involve local Noongar (particularly in surveying and monitoring), whether there is benefit in developing the Green route as a wider trail (1200mm – 1500mm) for a short distance each side of the towns to encourage family riding with reversion to a narrower route beyond the towns, and whether dogs would be allowed.
- Input was also sought from the Ballardong Aboriginal Corporation, but no response was received.
- The consultants had an on-line meeting with a cycle group from the Narrogin area organised by the Shire of Narrogin. Feedback on the suggested routes (the Orange and Green routes as they were defined at the time of the meeting – during the public consultation phase) covered:
  - The group was supportive of progressing with the Orange route, seeing it as better value for money and more likely to attract cycle tourists and families from outside the area who enjoy weekend trips and overnight stays.
  - It was noted that long-distance trails like the proposed Beverley to Narrogin route are better suited to cyclists from outside the area — families or groups who enjoy weekend trips, riding about 40km per day, then staying overnight in town and enjoying local hospitality. Local families with young kids, on the other hand, generally prefer shorter local trails closer to town (around 4km – 10km).

Road bridges exist across all watercourses along the "Orange" route.

- The group stated that the Orange route's backroad-style concept would have high appeal and is already in line with how many local cyclists ride now.
- For the Narrogin Shire section, the group suggested refining the alignment to include more picturesque areas and diverse scenery, and since the group is so familiar with the area, they may be able to suggest alternative routes to cover more scenic landscapes and interesting backroads.

3.3 Fieldwork

The other critical element of the project was fieldwork undertaken by the consultants. Extensive field trips were undertaken in June 2025 (initial route examinations), August 2025 (to manage the Open House events), and September 2025 (route refinement). Fieldwork was undertaken during a winter that is regarded as one of the wettest in recent times. This proved useful in providing information on trail sections that will need extra works to address these rainfall events.

Use will need to be made of existing controlled crossings of the railway and maintenance track.

SECTION 4: COMMUNITY CONSULTATION

4.1 Introduction

Gauging the level of public, stakeholder and business support is important. It is also important to elicit any issues that people in the community may have about the project. Community consultation is extremely important in building the community understanding and support vital in delivering such a project.

4.2 Community Consultation: Open Houses (Drop In Sessions)

A series of Open Houses ("drop in" sessions) were arranged to discuss the proposed trail project with members of the community:

Wednesday 13 August – Brookton;

Wednesday 13 August – Beverley;

Thursday 14 August – Pingelly;

Thursday 14 August – Narrogin; and

Friday 15 August – Cuballing

These open houses were advertised on each of the local government websites and promoted via press releases. Each local government had a selection of material about the project on its website consisting of Open House notifications, maps of the two routes (as they were proposed at the time of the Open Houses), the Interim Report, information sheets about the project and a QR code link to the on-line survey.

Material made available at the Open Houses included the material that was on local government websites (as above) as well as hard copies of the survey and information sheets about the project. Attendees were encouraged to scan the QR code on the information sheets and fill in the survey on line. One attendee filled in the survey manually at one of the Open Houses.

Attendees included members of the general public, and councillors and officers from the project partners. In total, 26 people attended across the 5 events.

There was general support for the project; in particular there was support for getting started on the Orange route as it could be delivered quickly. One attendee had a very detailed list of questions; many of these are answered in this Feasibility Study while others are more relevant to the ongoing trail planning and management should the trail be developed. Other issues raised included:

- Could the trail be used for motorised trail bikes given the lack of options in Pingelly (this is a non-motorised trail and therefore motorised vehicles would not be permitted);
- could the Orange route be for cyclists only and the Green route for walkers only;
- flooding issues around some of the proposed route;
- safety concerns on some of the roads proposed to make up the Orange route (some of these detailed suggestions have led to a reconsideration of parts of the Orange route and a suggested re-routing of the Orange trail east of Pingelly and west of Cuballing);

- some attendees reflected on their experiences on other bike trails notably the Brisbane Valley Rail Trail (QLD) and the Danube Cruise and Cycle (Europe), noting some of the facilities such as easily accessible charging stations for e-bikes and the opportunities for businesses such as cafés and bike shuttles;
- one attendee suggested with the right on-ground and app-based signage, the Orange route could also function as a local very attractive drive trail.

4.3 Community Consultation: On-line Survey

An on-line survey was made available via the 5 local governments' websites and on material displayed at the Open Houses (users could access the survey via a QR code or could hand in a filled-in survey). The survey was open from 4 August 2025 to 3 September 2025 (the last responses were received on 31 August). The survey elicited 375 responses.

A copy of the survey and full details of the responses can be found at Appendix 2 (noting that the open ended questions pertaining to design ideas, trail name and postcode of respondent are not included within the graphics material but a summary of the responses follows on from the bar chart results presentation).

4.3.1 Key Likely Use and User Responses

The key results of the survey in terms of use and users were: Response by region:

- 69% from Perth metropolitan;
- 18.3% from Wheatbelt;
- 2.7% from Peel;
- 5.5% from South West;
- 1.9% from Great Southern;
- 0.5% from Mid-Western;
- 0.2% from Kimberley; and
- 1.9% from interstate.

- 95% of respondents owned a bike. 43% owned a mountain bike; 37% owned "other bike" – probably more than one; 11% owned a road bike.
- 87% of respondents rode a bike or took a long walk either daily or weekly.
- 47.7% of respondents walked or rode for leisure, activities and scenery; 25% for health and fitness; 24% rode or walked for other reasons (most of these said they rode or walked for both leisure, activities and scenery and for health and fitness).
- 95% of respondents said they would enjoy the opportunity to travel between Beverley and Narrogin on a trail off the Great Southern Highway.
- 65% of respondents said they would use both trails - the Green and the Orange; the remainder split their responses between the two routes.
- When asked how they would use the proposed trail, 41% of respondents said they would use the Green and Orange routes as a loop returning to the point of departure; 18% said they would ride end to end and then return - out on one route and back on the other; 16% would ride or walk short sections e.g. out of a town and back again on the same route; 13% said they would use the trail end to end without a return.

- 66% of respondents said they would use the trail a few times/year, while 17% said they would rarely use it. 11% responded with 1/month.
- 35% of respondents were aged between 55-64, 25% between 45-54, 19% between 35-44, and 13% over 65.
- 69% of respondents were male, while 29.5% were female.

These survey results are useful in considering the business case for the trail.

4.3.2 Suggested Design Elements

The survey included an open-ended question asking for suggestions for design of the trail should it proceed. The following provide the key outcomes (noting the full suite of summarised responses is included in Appendix 2):

TRAIL FACILITIES EN-ROUTE

- 40 responses suggested trail elements covering clear signage on the trail (some suggesting similar to the Munda Biddi Trail at every direction change) and at road crossings, on-trail water provision (tanks was one suggestion), shelter and shade stops (shown on maps), seats, bins, toilets, and picnic tables. A number amongst these 40 responses suggested the use of apps to show mapping, bike and walker friendly accommodation, and a list of bicycle shops for repairs. 1 respondee suggested that a lot of signage was not necessarily needed given that all users now have apps.
- 19 responses suggested some variation of overnight accommodation on the trail – both huts (similar to the Bibbulmun Track and Munda Biddi Trail) and camping with tent options (many of these responses suggested the availability of water at these sites).
- 6 responses suggested secure parking at end points and in towns with cameras and bike racks.
- 5 responses suggested provision of interpretive material offering historic information – apps, signage and relics such as rail wagons were suggested as ways of displaying this history.

ROUTE SURFACING AND WIDTH

- A large number of responses offered support for single track – scenery and maintenance considerations. One good example was this response "Please do not make the mistake of using mostly doubletrack, the Munda Biddi in comparison the Bibbulmun is a poor example of "for bikes" compared to "for walkers". Singletrack and epic singletrack is what will put this trail on a World map for riders. Some sections of the Munda Biddi are excellent single track but as an "epic trail" it is let down hugely by the amount of doubletrack (backroads - gravel roads) that it uses". Conversely 3 respondees indicated support for the track being not too narrow, saying that it should be wide enough for 2-way traffic and for cyclists to pass walkers. Such width offers better ability to maintain the trail. 4 respondees asked for a gravel road away from traffic.

ROUTE SELECTION

- Several responses covered a route that was away from roads, safe and/or not technically complex.
- Several responses covered matters such as "use the river", "use the railway maintenance track" etc.
- There were also a number of responses suggesting that the trail advocates persist with trying to gain access to the railway reserve to take users off roads.

- A number of different responses took issue with some elements of the route. The use of Bremner Road was not supported by some of these respondees for a range of reasons. Similar concerns were expressed about Yenyening Lakes Road and Patten Road, and Moorumbine Road between East Pingelly and Brookton.

- 5 responses suggested concerns with a range of farm management and privacy issues that may arise by using Bremner Road and other public roads (it is not clear why the use of an existing public road exacerbates such risks).

TRAIL MODELS

- 5 responses suggested simply following the design elements of the Bibbulmun Track and Munda Biddi Trail.

USER GROUPS

- 3 responses wanted the trail to be available to horse riders.

Some of these responses have been picked up in general costings. Comments about the route selection have been partially addressed through a route refinement process in response to further field investigations and the Open House and survey process.

In terms of those comments not covered by the above inclusions, it is worth noting:

- Concerns over impacts on landholder operations from the trail may be exacerbated by the new proposed route using Vacant Crown Land along the Avon River in preference to using Bremner Street. These likely issues are further discussed in Section 5.

- The provision of huts and bush camping sites is not considered necessary though it is acknowledged that the suggestion is very popular (being the second highest response). The distance between towns is suitable for cyclists to cover the distances easily within a day. While some of the sections may be a long day if undertaken by walkers (upwards of 30kms), the Green route is not considered hard bushwalking country and walkers may be able to travel greater distances than on the Bibbulmun Track for example. On the Camino Trail in Spain, the walk between towns and villages offering accommodation is often on quiet farm roads and is often of the order of 25-35kms. In addition, there is simply not the public land available to develop campsites or hut sites along the Green route. Adjoining landholders may take up the opportunity to provide accommodation if they believe there is a demand and are prepared to provide such facilities on a commercial basis.

- A desire for horse riding on the trail was expressed by 3 responses. As noted in Section 3, the Project Working Group determined that horses not be provided for on the trail with the possible exception of sections in Cuballing.

In terms of the trail name for any constructed trail, no one trail name stood out but there were some common themes emerging (noting the full suite of summarised responses is included in Appendix 2).

- 50 responses could be classified as favouring a title with some Noongar element in the name. Comments along these lines included:
  - Something in the local aboriginal language;
  - chosen by local aboriginal people would be awesome;
  - acknowledge First Nations' history;
  - fits with Munda Biddi Trail and Bibbulmun Track; and
  - Noongar word for the area or connecting towns.

- 29 responses were in favour of using a trail name which incorporated "Wheat" or "Wheatbelt" in the title.
- Broader geographic titles such as South West Loop, Golden Canola Trail and Great Southern Rail Trail were suggested by 11 responses.
- 9 responses suggested names utilising Beverley and Narrogin in the title e.g. Beverley Narrogin Trail, Narro Bevy Trail, Bevergin or Naverley Trail.
- 6 responses suggested a name reflecting local fauna and/or flora. 1 respondee suggested using local flora and fauna for section names. This respondee suggested:
  - The Woylie Trail for the Beverly to Brookton sections;
  - The Black-flanked Rock-wallaby Trail for the Brookton to Pingelly sections;
  - The Ground Parrot Trail for the Pingelly to Cuballing sections; and
  - The Bilby Trail for the Cuballing to Narrogin sections.

It is not the task of this Feasibility Study to recommend a trail name.

SECTION 5: ISSUES AND CHALLENGES

Each of the two routes have issues and challenges. These are presented below.

5.1 Issues and Challenges: Interim Report

A set of issues and challenges was set out in the Interim Report; these are reproduced below for completeness (but have been amended as needed by further fieldwork).

5.1.1 The Green Route - Land Tenure

The project brief indicates that the project partners are looking for a trail route utilising road reserves along the railway line. There is an existing maintenance track running alongside the railway track; Project Working Group members were of the view that it was possible to use some of this maintenance track to limit the need for constructing new trail thereby limiting cost and environmental impacts.

Using aerial photography and cadastral information, it has been established that the existing railway maintenance track appears to be primarily within the railway reserve. Table 1 shows the relative percentages of maintenance track that has been constructed in three tenures – railway reserve, road reserve and on the boundary of the two reserve types.

Table 1: Tenure of Existing Maintenance Track

	Total distance (along railway reserve)*	% of existing maintenance track constructed in railway reserve	% of existing maintenance track constructed on boundary of railway reserve and road reserve	% of existing maintenance track constructed in road reserve
Shire of Beverley	**18,400 metres**	**100%**	**0%**	**0%**
Shire of Brookton	**20,630 metres**	**81.6%**	**0.4%**	**18%**
Shire of Pingelly	**14,100 metres**	**96.9%**	**2.1%**	**1%**
Shire of Cuballing	**32,270 metres**	**83.7%**	**6.9%**	**9.4%**
Shire of Narrogin	**6,480 metres**	**8.6%**	**3.7%**	**87.7%**
TOTAL	**91,880 metres**	**83%** (76,455 metres)	**3%** (2,865 metres)	**14%** (12,560 metres)

**Distances calculated to northern edge of towns, and from southern edges of towns. It is assumed routes into, through and out of towns will follow local roads and/or existing paths.*

In addition to the very low percentage of maintenance track constructed in road reserve (14%), the sections of track that are constructed within road reserves are in very small sections. Table 2 shows the length of maintenance track constructed within road reserves.

Table 2: Lengths of Existing Maintenance Track Constructed in Road Reserves

	Number of sections of existing maintenance track constructed in road reserve	Location of sections of existing maintenance track constructed in road reserve	Length of sections of existing maintenance track constructed in road reserve
Shire of Beverley	0	N/A	N/A
Shire of Brookton	2	Between the railway crossing at Youraling Rd and the railway crossing at McGrath Rd.	3.4kms
		Between Copping Road and Kulyalling Rd.	310 metres
Shire of Pingelly	1	Between Kulyaling Rd and Aviation Rd.	135 metres
Shire of Cuballing	4	Between the crossing of the railway on the highway south of Karping Rd and Lot 090336.	800 metres
		Between Popanyinning railway crossing and Yornaning Rd East.	760 metres
		Between the southern boundary of Yornaning and Watsons Rd.	1.09kms
		Between Darcy St and Chungamunning St.	380 metres
Shire of Narrogin	1	Between the Shire's northern boundary to Hillside Rd.	5.685kms

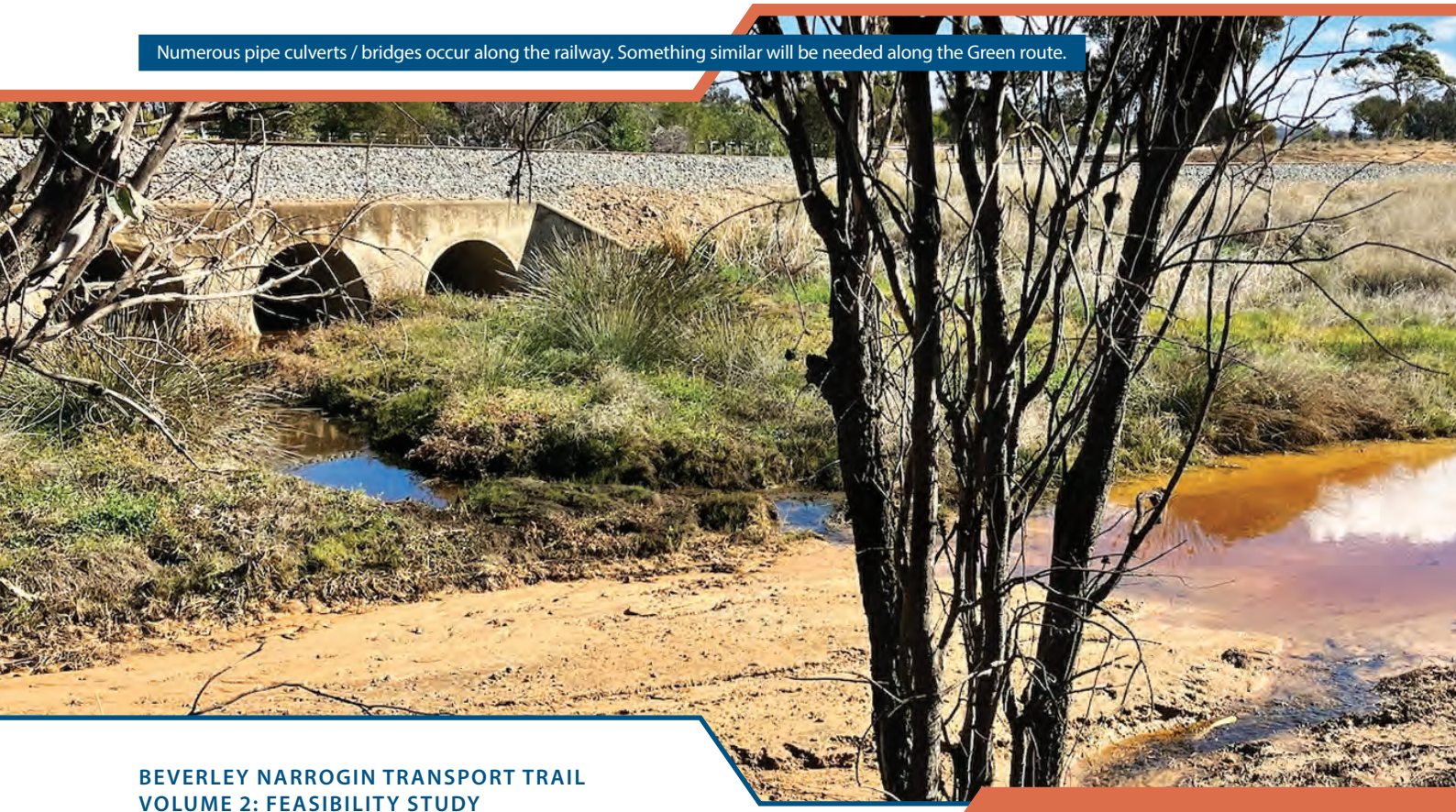
As can be seen from Table 2, with the exception of the section in the Shire of Brookton between the railway crossing at Youraling Rd and the railway crossing at McGrath Rd (3.4kms), the section in the Shire of Cuballing between the southern boundary of Yornaning and Watsons Rd (1.09kms), and the track within the Shire of Narrogin (5.7kms), sections of maintenance track within road reserves are relatively small (less than 1km). It will be difficult to manage use of these small sections of maintenance track within the road reserve as users will tend to stay on the maintenance track (if new trail is constructed) when it goes back onto the railway reserve unless managed by visual and (probably) physical barriers such as fencing or large chevron signage. In addition, it is not known what Arc Infrastructure's attitude may be to the risk that exists (Arc's Infrastructure role is discussed further below).

Complicating this issue is the fact that in sections along the proposed route there are no road reserves in which a trail can be constructed.

- From Beverley to Kokeby (approximately 13kms), there is virtually no usable road reserves adjoining the highway. The Shire of Beverley has a plan to develop The Commonage Trail which will provide an off-road alternative for trail users for some of this section immediately south of Beverley. South of Kokeby (for another 5.3kms), there are discontinuous road reserves. Road reserves adjacent to the railway reserve start south of this location.
- Immediately south of Pingelly, road reserves are discontinuous if only for a short distance. Trail users would need to be on the Great Southern Highway (or alongside the highway within the highway reserve in a narrow, vegetated verge) or alternative roads (or private land could be used under negotiation).
- Immediately south of Chungamunning Road, there is a short distance where are no road reserves that can be utilised. The options are that trail users would need to be on the Great Southern Highway (or alongside the highway within the highway reserve in a narrow, vegetated verge) or on private land which could be used under negotiation.

Because of this land tenure arrangement, new trail will need to be constructed for over 81kms of the proposed trail's route. This will be a significant expense. Project partners put forward the view that the Munda Biddi Trail is the "construction level" in terms of what is being sought for this project. Even constructing new trail to this "low" level (single track MTB) will be a very costly process. It is worth noting that, under the "definition" of Transport Trail discussed in Section 1, other types of users including bushwalkers, trail runners and horse riders can be catered for. The definition also notes that Transport Trails should ideally be wide enough to allow two people to ride comfortably side-by-side. This definition implies that new trail would need to be constructed to a wider standard than single track and it is suggested that a trail 1.2m – 1.5m wide would be more appropriate; this would further increase the costs.

Numerous pipe culverts / bridges occur along the railway. Something similar will be needed along the Green route.



It needs to be noted that the proposed trail has generated some interest within the horse riding community. The Department of Transport cycling strategies include the consideration that, in some cases, transport trails may cater for other types of users including walkers, trail runners and horse-riders. Unfortunately, any sections that utilise riding along the Great Southern Highway (as noted above) will preclude walkers and horse riders. Off-highway sections can be utilised by these groups. It is acknowledged that much of the Orange route would be unable to be accessed by walkers (from a user rather than a legal perspective). Horse riders may choose to ride the quiet country roads proposed though sections of the Orange route may also be challenging for that group of users.

5.1.2 The Green Route – Dealing with Arc Infrastructure

Any trail construction of the Green route will involve discussions, negotiations and (likely) working with Arc Infrastructure, manager of the railway corridor. In consultation for this project, some of the local governments had indicated they had worked with Arc Infrastructure on various projects in their local government are and it had not been a positive experience.

As part of the initial consultation process, advice was sought from the Public Transport Authority of WA. An email requesting advice was forwarded to several key people within the PTA. The following advice (summarised) was received from the Manager, Rail Freight Infrastructure:

> *"Arc is permitted to licence Corridor land to Local Government Authorities for Civic Purposes which allows for this use.* ***For safety reasons (and this is a relatively active line), Arc's maintenance /access tracks are not available for shared used by recreational users*** *(emphasis added).*
>
> *Should the corridor be wide enough for, and land available to construct a separate rail trail (that does not require Arc to reduce their track or impede their operations) then Arc may consider it. Arc will very likely require fencing to be installed to separate the rail trail from the access track if land is available. Arc has high public liability insurance requirements (up to $250 million).*
>
> *With Arc approval, PTA could lease to the LGA's however Arcs requirements would be carried over, such as fencing."*

This advice is taken to mean that – in effect – a new trail cannot utilise the railway maintenance track where it is within railway reserve (the railway is considered an active line). Where the maintenance track falls outside the railway reserve (on public road reserve managed by Local Government), negotiations with Arc Infrastructure may be more positive. However, as discussed above, this condition (existing maintenance track constructed in road reserve) is only met in a limited number of locations along the potential route.

The project partners will need to be aware of "permit/approval" risk in utilising the maintenance track on road reserve. This risk pertains to the potential time and cost of approvals.

There is the issue of preventing trail users from inadvertently going on to the railway reserve. This is likely to require visual and (likely) physical barriers where there is a risk of this occurring.

During consultation, the project partners indicated that working with Arc Infrastructure around the railway corridor requires the deployment of Track Protection Officers at a cost to any relevant project. These may be required during trail construction adding to the project costs.

Another issue in dealing with Arc Infrastructure is the possible need to get approval for the construction of new railway crossings at locations where any trail needs to cross over the railway line. It is envisaged that this will be an extremely difficult and time consuming task with limited chances of success. There would be a need for use of existing crossover points as permission to create new crossings will be difficult to get. Railway reserves also prevent the trail crossing over from the highway to more attractive road reserves in some locations. Whilst some road reserves may be more attractive than ones chosen, it is impossible to access them due to railway reserves between the Great Southern Highway (and other roads) and the road reserve.

Attractive tree-lined gravel roads are a feature of the recommended "Orange" route.

5.1.3 The Green Route – Water Crossings

Along the railway line between Beverley and Narrogin are many locations where water flows are channelled under the railway line by culverts of varying sizes and configurations (pipes or box culverts). There are also a large number of bridges. The maintenance track has fewer culverts in "parallel positions" at formalised water crossings (as maintenance vehicles can more easily negotiate wet areas). However, the presence of these structures indicate where water flows (temporary or permanent) will need to be considered when new track is constructed (and solutions have a cost).

Importantly there are 10 bridges ranging in size from 7 metres (Wabbing Creek) to approximately 35 metres (South Hotham River). There are 4 bridges over 25 metres (Keelocking Creek, Hotham River, Hotham River South and South Hotham River).

It may be possible to address some of these drainage issues by leaving vegetation in place. The railway and railway maintenance track have significant clearing either side of the centreline thus adding to the drainage issue and the need for a large number of culverts which may not all be necessary if construction techniques are correct.

The other issue in terms of water flow is the nature of the soil along the railway reserve. It was noted during fieldwork several sections of track had become "boggy" after what amounted to a relatively small amount of rain the previous day. This is likely to be an ongoing issue and short trail sections are likely to need gravel sheeting/fill and consequently resheeting after rainfall events to ensure they remain usable. Bike riders in particular will find the need to constantly dismount and push their bike around these patches (creating new "tracks" in the process) to be a matter of frustration thus impacting negatively on their experience.

5.1.4 The Green Route – Trail Construction

Trail construction will necessarily require vegetation clearing even if the trail is only constructed to single track width - there is a legitimate case to be made that it should be developed to two-way standard (1.2m – 1.5m wide) to allow riders to traverse side by side as envisaged in the definition of Transport Trail. Offset vegetation may be required.

5.1.5 The Green Route – Trail Costs

Key costs for construction will be trail construction (including necessary clearing) and water crossings. Other significant costs associated with the Green route will include the need for gravel sheeting or raising various sections of the trail (to manage boggy spots), fencing associated with managing interactions with the rail corridor, and surveying (to ensure the trail stays within the road reserve). Fencing costs may be quite high depending on the standard that will be needed to address any concerns of Arc Infrastructure regarding a trail close to an operating rail line (even though the train operations are very limited).

5.1.6 The Green Route – Limited Aesthetic Appeal

The aesthetic appeal of the trail routes (Green and Orange) is a subjective assessment. However, the Green route is located very close to the railway line and reserve for much of its journey and – particularly in the southern parts – is located quite close to the Great Southern Highway. Whilst some of the proposed corridor is vegetated, much of this vegetation tends to be sparse and easily seen through. Clearing for the railway and the highway (and other roads) would be very obvious from a trail constructed alongside the railway reserve.

5.1.7 The Green Route – Limited Overall Appeal

It is debatable as to whether a shared use trail built primarily alongside the railway reserve and within close proximity to the Great Southern Highway will have significant appeal to a wider cycle touring market. This is an important consideration given what will be a significant investment required to construct a trail. Such a trail will have local appeal as an exercise or relaxation route for local people and is likely to have some appeal to visitors who stay in caravan parks in the towns and villages along the route.

5.1.8 The Orange Route – Safety Issues and the Impacts on Target Markets

The Orange route – using scenic country roads to appeal to cycle tourists – does have some issues associated with its development. Such a trail has limited appeal to local users and families who stay in caravan parks notably due to the fact that it is a road riding route and does not offer a safe off-road experience for all types of users. It is acknowledged the Orange route offers road riding opportunities and is pitched at a different market.

As noted in Section 1, the Department of Transport lists a primary advantage of a Transport Trail is that it can provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. However, the only Transport Trail currently designated within the region uses gravel roads to connect Beverley to Country Peak (see *Avon Central Coast 2050 Cycling Strategy)*.

Consultation with the project partners indicate concerns over safety at particular times of the year. Harvest time (October-December) and seeding times (April-May) means that the roads will be carrying more heavy vehicles than usual. However, there are likely to be fewer trail users during harvest season (due to climatic conditions). Importantly, cycle tourism (the key market likely to be attracted to this route) are familiar with riding in traffic; the presence of heavy vehicles for limited times will not be a major concern. For example, the Wild Gravel Trail (a 440km cycle touring route visiting 8 towns (including Gnowangerup, Katanning, Cranbrook, Mt Barker and Ongerup) and incorporating the iconic Koi Kyeunu-ruff/Stirling Range) includes one section on a designated Road Train Route and other sections with sealed sections carrying trucks.

In addition, given that the main market envisaged for the trail by the Project Working Group (the cruiser market) is generally looking for shorter rides (rather than the 105km complete trail), it may be possible to highlight sections of the Orange route where encounters with heavy vehicles will be limited.

5.2 Issues and Challenges: Project Working Group Considerations

The issues that were canvassed in the Interim Report were discussed in detail at the presentation of the Interim Report to the Project Working Group. However, the PWG did not view these as significant enough impediments to proceed with more investigations of the Green route in particular. As noted in Section 3, the PWG members clarified that what the brief was seeking (and the member local governments were seeking) is an option utilising road reserves alongside the railway line to offer a safe, off-road cycle and walk option for local people, families and grey nomads who were staying in local caravan parks. The example offered was that of a "stereotypical" trail user of Pingelly's proposed MTB trail who would be a family group looking for a MTB ride with some minor "technical" elements then looking for an easy safe off-road path to provide an add-on activity. This is what PWG members believed the market to be for the Beverley Narrogin Transport Trail and the option offered by the Green route. In addition, providing a local trail for local people to use also triggers funding opportunities from Lotterywest. PWG members were of the view that the Orange route does not address that demand for a range of reasons but the Orange route still had merits to appeal to a different market and to provide loop opportunities around each of the six major towns and villages (Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin).

5.3 Issues and Challenges: Updates Based on Open Houses and Fieldwork

The Open Houses and subsequent research and fieldwork have produced a slightly different route for each of the Green and Orange trails compared with the routes that were put forward in the Interim Report and presented at the Open Houses and in the on-line survey. It needs to be emphasised that – particularly for the trails connecting Beverley to Kokeby – there are limited options for the Green and Orange routes and all options have significant issues associated with them. There is no perfect alignment particularly through this section (Beverley to Kokeby) but using the highway verge is not possible.

5.3.1 Route Amendments: The Orange Route – Avoidance of Heavy Traffic Routes

Comments received during the Open Houses and in the surveys indicated concerns about aspects of the Orange route east of Pingelly and west of Cuballing notably around heavy truck traffic on these roads.

The original route between Moorumbine and Pingelly proposed to use Wickepin-Pingelly Road to take users into Pingelly. Feedback on heavy vehicle use by a concerned cyclist has meant that the recommended route uses only a small distance on Wickepin-Pingelly Road (unavoidable) before users turn south on Old Wickepin Road, travel on Yenellin Road into Pingelly through the main street to the trailhead at Pioneer Park (this particular route into Pingelly was requested by the Shire of Pingelly in response to an alternative developed after the Open Houses).

The original route into Cuballing from the west proposed using Cuballing West Road then taking users through Cuballing and out on Springhill Road heading west. Feedback on heavy vehicle use heading east from Patmore Feeds to the Great Southern Highway has meant reconsideration of this route. The recommended route now still heads into Cuballing on Cuballing Road West. Users would leave Cuballing on the Green Route as far as Chungamunning Road. They would then turn west onto Chungamunning Road and head towards Springhill Road. To avoid potential conflicts with heavy vehicles heading along Springhill Road to the Great Southern Highway from Patmore Feeds, a separate 850 metres of roadside single track would be constructed along Springhill Road. This route (into and out of Cuballing) was at the request of the PWG in response to an alternative developed after the Open Houses.

There were also concerns expressed over heavy vehicle use of Bremner Road at particular times; route options here are limited and it may be that – over time – the preferred route defaults to the Green Route which may be built along the Avon River as discussed below. If this is the end scenario, cyclists using the Orange route could travel off-road on the Green route as far south as Kokeby Road before re-joining the Orange route utilising country roads.

5.3.2 Route Amendments: The Green Route – Beverley to Kokeby

A change in route for the Green route between Beverley and Kokeby was the most significant change that arose as a consequence of this work. The original Green (walk and cycle) route headed south from Beverley along the proposed Commonage Trail then turned east on a road reserve (approximately opposite Caudle Rd) to connect with Bremner Road. From there the trail headed south along Bremner Road, Patten Road and Yenyening Lakes Road before connecting with the Great Southern Highway. This was not an ideal route for walkers in particular as it put users onto a road with a level of traffic that may not be desirable for a walk trail. Feedback from the Open Houses and surveys was that Bremner Road was heavily trafficked with farm vehicles and was not safe. Respondents also indicated that Patten Road and Yenyening Lakes Road were both unsafe and became very muddy after a small amount of rain. Some respondees were concerned that this use of public roads would exacerbate crime and privacy issues for surrounding farmlands (though these roads are public roads and people use them currently); there were also concerns about shooting on farms causing panic amongst trail users on the road.

Further research indicated that there is land classified as Vacant Crown Land alongside the Avon River from the southern boundary of the reserve through which the proposed Commonage Trail passes to the boundary of the Shire of Beverley and the Shire of Brookton (south of Southern Branch Road) – a distance of some 20.4kms. Developing the trail from Caudle Road along the Avon River from Caudle Road to Kokeby East Road will remove (partially) the concerns about walkers in particular using less than ideal roadsides. This route was requested by officers of the Shire of Beverley (the alternative is to develop the trail further along the river as far south as Southern Branch Road though this will involve the construction of two crossings of the Avon River). The Orange route should still be shown along Bremner Rd as cycle tourists are more capable of dealing with the likely traffic issues (and this allows the Orange trail to be delivered in a timelier fashion). While a route along the Avon River would be very attractive and lift the trail to new levels of aesthetic appeal, using the river reserve will ensure a new set of issues need to be addressed.

5.3.3 Route Amendments: The Green Route – Potential for Flooding

The proposed new section of the Green route will possibly be prone to potential flooding. It has been indicated that there have been two floods in the last 10 years through this section of the Avon River. Flooding will impact upon both construction costs and maintenance impacts. This route will unfortunately be subject to inundation, but it presents the best alternative to the use of Bremner Road for the Green route given the concerns expressed by respondees and the general issues associated with road verge walking on roads subject to heavy traffic at certain times. Calamitous events such as flood will naturally generate significant rebuilding activity and consequent costs. These events are generally unmanageable and should simply be accepted as part of the longer-term reality of trail management – if the risk can be "designed out" or minimised, this approach should be taken. Building an elevated trail is one possibility; however, the trail travels over 20kms along the river reserve so an elevated trail (or boardwalk) will be very expensive. Routing the proposed trail as far from the river onto higher ground is an obvious solution.

5.3.4 Route Amendments: The Green Route – Landholder Concerns

In a written submission to the Shire of Beverley, one landholder along Bremner Road raised a number of issues relating to the use and promotion of Bremner Road for cycling and walking. Whilst some of these related to concerns over the safety of users (as did other responses to the on-line survey), many related to issues associated with a road travelling by an operating farm and concerns with what might be collectively termed farm management issues and lifestyle issues. Many of these are generic concerns often raised when rail trails are proposed (rail trails are recreation trails developed on disused railway lines that often run through private land on publicly owned corridors).

The issues of concern expressed about the use of Bremner Road are difficult to fathom (given it is a public road which can already be accessed by any number of users – motorised and non-motorised). However, it is highly likely that similar concerns will be raised with the recommendation to develop the trail along the Avon River between Caudle Road and Southern Branch Road on Vacant Crown Land as this more closely replicates a rail trail i.e. a linear recreation corridor on publicly owned land running through operating farmland and other private land. In anticipation of these concerns and noting that this route did not form part of the documents on which consultation was carried out, Table 1 is presented to show a range of problems generally raised and some generic solutions – note these are for rail trails but the same set of issues and solutions may apply. The table is provided as guidance; it does not substitute for detailed discussions with adjoining landholders over problems and specific tailored solutions – this should be part of the pre-construction consultation if the proposed trail proceeds.

This is not to say that the concerns raised by landowners in this case are not worthy of attention. Many of these concerns are legitimate and warrant careful consideration. This is not then so much a case of people raising unfounded issues – rather, it is a case of people raising issues that need to be resolved.

Table 3 is informed by the consultants' own experiences and draws upon two NSW Government documents produced to examine biosecurity and other risk factors associated with rail trails in rural areas (*Strategic Risk Assessment – Biosecurity Risk Associated with Rail Trails 2017; Biosecurity Risk Assessment for the proposed Tweed section of the Northern Rivers Rail Trail 2019*). Whilst the reports focus on rail trails, many of the issues are likely to be raised particularly along the proposed trail within the Shire of Beverley.

Sections of the "Green" route will pass close to farms given the lack of options.

Table 3: Landowner Concerns and Solutions

IMPACT / ISSUE / PROBLEM	SOLUTIONS SUCCESSFULLY USED ELSEWHERE / COMMENTS FROM EXPERIENCE ELSEWHERE
Impacts on adjoining landowners' lifestyles	
Crime: Trespassing, vandalism and theft. Landholders often express a range of concerns regarding the issue of trespassing on to farmland and site security especially where a trail corridor is remote from farm buildings and public roads. In addition, a problem that has arisen for some years is people trespassing on farms to take pictures of canola in flower. A very recent report from South Australia highlights this issue (see **https://www.abc.net.au/news /2025-09-24/canola-cropinvaders-told-to-stoptrespassing-forselfies/105802230**). Can emergency vehicles, police and Council rangers access the corridor?	**Comments** *Crime* • Numerous studies have concluded trails do not generate crime. Research and anecdotal evidence suggest conversion of rail trails tends to reduce crime by cleaning up the landscape and attracting people who use the trail for legitimate reasons such as recreation and transport. • There have been no reports of trespassing, theft or vandalism on the Murray to the Mountains Rail Trail (Victoria) since the establishment of the trail. Similarly, the Collie Darkan Rail Trail (Western Australia) has had no incidents of crime. • The Clare Valley (South Australia) Riesling Trail has had 2 incidents along the trail in over 40 years of operation. One of these, a burglary, would have occurred regardless of whether the trail existed at the rear of the property. The other, an incident involving an unrestrained dog attacking stock in an adjoining paddock, is one that can be avoided by trail users following trail rules. • The Brisbane Valley Rail Trail in South East Queensland had 2 incidents with trail bike access in over 10 years, but these were easily dealt with by the local police. • The Rails to Trails Conservancy work in the USA includes dozens of testimonials from law enforcement officers in several jurisdictions confirming that the expected/ perceived crimes simply do not occur. **Possible solutions** *Crime prevention* • Design solutions to minimise theft include installation of security (and additional) fencing and planting. • Trail design can eliminate overgrown vegetation and tall shrubs that minimises hiding places and creates long sight lines. • Security lighting at trail heads and parking areas adds security.

Table 3: Landowner Concerns and Solutions

	• Emergency vehicle access helps increase user security. • Keeping trail corridors clean and well-maintained increases sense of community ownership and 'passive surveillance' reducing minor crime such as litter, graffiti and vandalism. • Plantings of tree-lined corridors along parts deemed 'vulnerable' by adjoining landowners could also provide a way of reminding trail users to stay on the trail – these provide a form of visual fence. • Many trails have a signposted Code of Conduct as a means of reinforcing what is expected of trail users and highlighting inappropriate behaviour. • Prohibiting motor vehicle use (by regulation and design) reduces property crime. Locked management access gates are a proven method of restricting access on to a trail. The Kilkivan Kingaroy Rail Trail (QLD) reports no issues with motorbike use after a short time (there was some illegal use initially). • Volunteer or professional trail patrols ranging from informal monthly clean-ups and maintenance crews to daily patrols. • The trail construction would include the provision of appropriate signage and barriers. Signage (and appropriate barriers) would allow enforcement of trespassing rules as well as acting as a physical barrier. • The incidents with trespassing associated with canola flowers is one that is happening now from adjoining public roads – the SA report (plus many others of a similar nature) do not have trails associated with the issue. While a trail may bring more people to an area, it does not introduce a new problem – the issue already exists. A new rail through farmland (as envisaged for the Beverley Kokeby section) does bring a new trail to an area and incidents should be monitored.
Loss of privacy for adjoining landowners Often residences have been constructed in close proximity to the trail corridor. Landowners living near to or alongside the proposed trail anticipate that noise and reduction of privacy will occur.	**Possible solutions** • Some effective design solutions are possible and have been used to good effect on other rail trail projects. Fencing and security screening are the obvious methods. • Re-routing the trail off the formation away from the affected residence elsewhere in the rail corridor.

Table 3: Landowner Concerns and Solutions

	• Substantial additional vegetation planting to provide a visual barrier between the trail and the residence (while minimising 'hiding' places). • Installation of screen fencing to obscure views of houses from the trail.
Land value devaluation	**Comments** • What empirical evidence exists comes from the USA (American Trails website). The evidence is that rail trails positively add value to properties along their route. Research and anecdotal evidence suggest conversion of rail trails tends to either have a positive impact or a neutral impact on land values. It is positive where land use is changing to more intensive uses (such as from rural production to rural living/rural residential). Single family residential property values along the Little Miami Scenic Trail (Ohio) were positively impacted by proximity to the trail (Karadeniz 2008). Properties along the Minuteman Bikeway and Nashua River Rail Trail (Massachusetts) sell for a higher proportion of the asking price and in about half the time that it took for houses in the general inventory (Della Penna). Properties near, but not immediately adjacent to the Burke Gilman Trail (Seattle) sold for an average premium of 6% while those immediately next to the trail sold for a minimal premium (around 0.5%). Neutral-to-positive expectations for property values were held by 87% of adjacent neighbours to the Luce Line Trail (Minnesota). In the same 1988 study, 56% of farm neighbours held that same view, as did 61% of suburban neighbours (American Trails website). • The consultants are not aware of any documented evidence to suggest property values decrease.
Stress and concerns about the impacts of trails on farmers lifestyles and incomes An element of uncertainty in both the short-term (until a decision is made) or the long-term (from trail operations).	**Comments** • Any change is difficult and causes stress for many people, especially where it is a change to the way people have operated their businesses and lifestyles for many years. • All public infrastructure projects create stress and concerns for those who will be negatively affected (or perceive they will be negatively affected). The experience in rail trail projects elsewhere is that the problems that adjoining landholders believe will occur do not occur. They are managed primarily by ongoing consultation and good design.

Table 3: Landowner Concerns and Solutions

	• Sometimes landholders are concerned that the confidence to undertake and invest in on-farm improvements is completely eroded whilst the any trail project is "hanging over landholders' heads". Landholders are looking to make decisions on farming practices notably around reconfiguring paddocks which will involve capital investment primarily for fencing but also for other items of farm infrastructure. On other projects, landholders have argued that any decisions they make on fencing locations in particular may be redundant if the trail is built and the corridor fenced which would have the effect of possibly reconfiguring paddocks. Given the life of fencing at 20-40 years, this is a reasonable concern over capital investment. However, there is simply no solution to this uncertainty at this time.
Impacts on farming practices	
Threat of fire Landowners are often concerned about the possibility of increased fire risk along a trail with fires spreading unimpeded along the corridor and consider that additional fire protection will be required if the reserve is used for a trail. Landowners occasionally concerned about discarded cigarette butts from trail users.	**Possible solutions** • Development of an effective fire management plan in close consultation with DFES. • Trail closure during periods of fire bans – as occurs on other tracks in high fire areas. The Hume and Hovell Track (in southern NSW) is one example of the use of specific closures. • Smoking can be prohibited on the trail. Councils can declare the pubic area a smoke-free zone, just as it can with other public areas. (Note: trail users are usually people interested in healthy pursuits and are therefore predominantly non-smokers). • Development of the trail has a significant advantage in that it provides easy access for emergency vehicles and other vehicles (such as electricity maintenance vehicles) to locations that may otherwise be difficult to access. • Trail users are overwhelmingly interested in healthy outdoors pursuits are highly unlikely to be smokers.
Weeds There are usually concerns over the introduction of weeds on if they are not already present.	**Possible solutions** • Weed management will be the responsibility of whichever entity is responsible for the trail. • Existing weed infestations can be cleaned up during trail construction, thus requiring minimal ongoing weed removal/spraying.

Table 3: Landowner Concerns and Solutions

	• Preparation of a regularly reviewed Trail Management Plan covering all maintenance issues prepared in advance of construction. • Focus of maintenance – erosion, vegetation regrowth, weed control and signage damage. • Division of maintenance into regular inspections and simple repairs and once/twice yearly programs undertaking larger jobs such as vegetation control. • Signage to indicate wheels and shoes must be clean and free of dirt and vegetable matter before entering the trail. Wash down areas for wheels and footwear at both ends of the trail to encourage "come clean, go clean" can be constructed if noxious weed spread is a high risk. This may be the case for sections of the proposed trail where dieback is present.
Interactions between nervous livestock and trail users with dogs Farmers whose properties adjoin the corridor are often concerned at unrestrained dogs being allowed along the proposed rail trail and causing difficulties for their livestock.	**Comments** • It is well recognised that people walking dogs is a pastime with considerable physical and mental health benefits. On other trails, some sections of the trail (notably within the urban areas) permit this activity. **Possible solutions** • On other trails, dogs are usually either banned altogether, or trail users are required by regulation to keep their dogs on a lead at all times. The Trail Manager may ultimately decide to allow dogs (on leads) within the 'town' areas of the trail. This is the recommendation put forward for this trail – that dogs be allowed on the trail within the town sections. • If the trail or parts of the trail are declared 'dog free', Councils' rangers could issue infringement notices and the offender can be fined.
Spray drift Farmers are often concerned that trail users may be travelling on the trail at times when aerial spraying of crops is occurring.	**Comments** • This is an issue widely stated, but in reality, very few encounters are reported by trail users. • The use of drones is becoming more widespread due to their enhanced accuracy and efficiency. • It is to be expected that chemicals being applied are not hazardous to humans and are approved.

Table 3: Landowner Concerns and Solutions

Interactions between trail users and stock – interference in farming practices. Some landholders were concerned about interference in farm practices by trail users who are not familiar with farming practices - e.g. separation of lambs and mothers or "spooking" of stock by passing cyclists not used to people. There is also the issue of visitors seeing "distressing" (but normal) farming scenes and being upset and reporting to authorities.	**Comments** • This has not been an issue in rail trails running through farming country that the consultants are aware of. • On many rail trails, signs at trailheads alert users to the fact that the trail passes through farming areas. **Possible solutions** • Prevent contact between animals and people by using signage to indicate appropriate behaviour and warn of trespass and biosecurity obligations and risks. Signage to advise of appropriate behaviour when on the trail e.g. not making excessive noise that may frighten stock along the trail. • A suggestion coming from landholders on another rail trail project was for landholders to include their phone numbers as appropriate on relevant signs to allow trail users to report issues as they pass by. This may not suit all landholders and needs to be discussed as part of trail development and construction planning should the trail proceed.
General biosecurity There are concerns that the use of rail reserve by trail users will increase the risk of contamination of livestock. The key question was - How will the biosecurity obligations be met to satisfy the statutory requirements of affected farms? Some landholders believe there will be a high risk of introduction / contamination of weeds and disease.	**Comments** • Advice obtained by the proponents of the Great Victorian Rail Trail (in central Victoria) from the Department of Primary Industries (Victoria) was that a trail should not jeopardise the landowner's ability to sign the National Vendors Declaration. The rail trail would be considered in the same way as any public thoroughfare would be. Farmers have no control over who uses and what is done on adjoining roads so they have 'no knowledge' unless they are notified (the Declaration specifies that "to the best of a farmers knowledge and from information they have control over that their livestock comply with the conditions on the declaration"). Trail users are no different to road users in that people may trespass onto private land but most are unlikely to cause significant damage, unless there is some malicious intent. Again, the farmer has to have some knowledge of this before the declaration is declared false. Cars and particularly tractors moving at high speed would disperse more dirt from roads and tracks than collective effort of numerous bikes (in particular).

Table 3: Landowner Concerns and Solutions

	• The NSW Government prepared guidelines for assessing rail trails (*Strategic Risk Assessment: Biosecurity Risks Associated with Rail Trails*) which included an assessment of the risk of trail users introducing exotic animal diseases as an unlikely risk with catastrophic consequences, giving it a high risk rating. The documents suggest that risk treatment options reduce likelihood and result in a low residual risk rating. The document identifies that current national border control and quarantine protocols are in place. Suggested solutions include providing bins which fully contain rubbish (or instructing people not to leave rubbish and why), provide information on the general biosecurity duty to which the general public must adhere, and using signage to prevent contact between people and animals. Information on the trail should also include biosecurity risks and responsibilities including warnings about food scraps, human waste, soil, seeds, organisms and people who have been outside Australia in the last 7 days. The assessment also notes that trespass laws apply. • The NSW Government document assesses the risk of trail users introducing non-endemic animal diseases as an unlikely risk with moderate consequences, giving it a medium risk rating. The documents suggest that risk treatment options reduce likelihood and result in a low residual risk rating. Solutions are similar to the risk of introducing exotic animal diseases and also includes signage to indicate wheels and shoes must be clean and free of dirt and vegetable matter before entering the trail. (Such facilities could be included at trailheads). Trailheads could also include wash down areas for bikes, prams, and footwear in high-risk areas. • The NSW Government document assesses the risk of trail users spreading established diseases between farms as an unlikely risk with moderate consequences, giving it a medium risk rating. The documents suggest that risk treatment options reduce likelihood and result in a low residual risk rating. Suggested solutions are as above. • The NSW Government document also recommends that the trail proponent include in their emergency response plan a provision to close the trail during a disease emergency.

Table 3: Landowner Concerns and Solutions

Fencing of the corridor - who pays and what might be needed.	Comments
Farmers often believe that the trail project will result in them needing to pay for additional fencing. Farmers often believe fencing will cause problems with farming practices and not fencing will create havoc with livestock / trail user interactions & liability.	• The cost of fencing, where required, should be a project cost. Adjoining landowners may wish to receive remuneration should they wish to erect the fencing to their standards (rather than contractors). • Replacement of fencing over time (as it wears out or gets damaged) would need to be part of the original agreement with adjoining landowners. Landowners in other projects have stated that they would not want to replace a fence that fell down (over time) as they would not originally want the fence and would not need the fence if the trail did not proceed.
Construction impacts on livestock	**Possible solution**
Timing of construction may have impacts on landholder's use of certain paddocks for livestock at certain times of the livestock management cycle.	• Should the trail proceed, construction timing should be worked out and negotiated between the Project Manager and any relevant landholders to minimise disruption to livestock and cropping management.
Impacts of trail users	
Management of litter and toilet waste	**Comments** • Some landowners whose properties adjoin a former railway corridor expect high levels of litter. • It has not been a problem elsewhere. The Lilydale Warburton Rail Trail (Victoria) is kept spotless, with little or no visible signs of litter. The Gippsland Plains Rail Trail was involved with Clean Up Australia Day, but their involvement was curtailed because they effectively had nothing to do. There was no litter to clean up. The Clare Valley Riesling Trail (in SA) is also litter-free. **Possible solutions** • Thoughtful placement of rubbish bins at trailheads on the trail. • Regular maintenance patrols by council staff or volunteers, or the trail manager. • While installation of composting toilets is one appropriate solution, these are costly and are generally recommended only where there are long stretches between towns.

Table 3: Landowner Concerns and Solutions

Farm/user safety	Possible solutions
Adjoining landholders can be concerned that farms are unsafe workplaces and people are being invited into such unsafe workplaces. Belief that trail will lead to unauthorised intrusion into adjoining paddocks.	• Good design and appropriate information will discourage people from going off the trail onto farm property and thus placing themselves in dangerous work environments or in close proximity to unpredictable livestock. • Fencing is the key solution; appropriate warnings on trail literature (websites, trailhead panels, codes of conduct) is the right place to deliver these messages in written form and need to be included when such material is designed. • Particular attention to the trail design issues around sites where agricultural buildings are close to the rail trail (some of these solutions are discussed above in the section on crime prevention).
Trail management issues	
Funding for construction	**Comments**
A major concern for opponents to rail trails is "Who is going to pay for the trail project?" How will it affect rates?	• Many Federal and State Government funding programs are available for tourism/recreation projects such as trails. Numerous trails around Australia have been funded by major grants worth hundreds of thousands of dollars. • Major companies, such as mining companies, have contributed to trail projects. For example, BHP Billiton has contributed $200,000 towards the Camperdown Timboon Rail Trail in Victoria. • Volunteers and other low-cost resources, including low risk prison crews, can be brought into trail construction and maintenance projects. • Entire construction costs for trails are rarely borne by local government, therefore there is reduced impact on ratepayers for construction (even though ratepayers do benefit directly from trails, and indirectly by visitors spending in the community). • Green energy projects may have a Community Benefit Fund (or similar) which could contribute to trail construction.
Liability	**Comments**
Who is liable for the safety of users both on-trail and when they stray off-trail. It was also raised in the context of farm dogs or protective livestock attacking trail users.	• In recent years public liability has become a major issue right across the community. Trails are not immune from concerns related to liability, or from the resulting issues. Indeed, liability – who is liable and who will pay – is often raised as a potential 'problem' with rail trail projects.

Table 3: Landowner Concerns and Solutions

	• The exclusion of dogs from farming areas (as suggested above) means that someone who takes their dog into these areas is in breach of the trail regulations and any subsequent liability action would take this into account. **Possible solutions** • Primary project partners must take responsibility and ensure that their role is clear and unambiguous. • Management body takes liability responsibility along the full length of the trail regardless of ownership. Farmers do not carry any additional liability. • Effective signposting at trailheads and access points indicating trail regulations and trail use rules and user responsibilities. • In respect of farmers' general insurance, this has not been an issue in other rail trails. Fire management plans address the possible fire risk increase, while reports of theft of property have been virtually non-existent (as noted above). • Courts are increasingly ruling that people are responsible for their own actions, marking a different emphasis to that which occurred in the late 1990s/ early 2000s when managing authorities were held responsible for inappropriate behaviour.
Unauthorised trail users There are often concerns over whether motor bikes would use the trail. Access by motor bikes and unauthorised motor vehicles.	**Comments** • Unauthorised access to the trail by users of cars, motor bikes, etc., is often stated as one the major concerns of adjoining landowners (it is also a concern of potential trail users). **Possible solutions** • Prohibit motor vehicle and motor bike use through motor vehicle exclusion barriers and effective signage at each road crossing (see examples within report). • On the Lilydale Warburton Rail Trail, as with other rail trails in Victoria, a standard gate configuration has been designed for use at all road crossings and trailheads. The design allows unimpeded access by walkers, cyclists, people in wheelchairs, etc. The design is such that motorbikes cannot squeeze past the gate posts of the narrow maze. Access by authorised vehicles, such as management vehicles, adjoining landowners (where needed) and emergency vehicles is gained through an adjoining (locked) management gate.

Table 3: Landowner Concerns and Solutions

	• Encourage reporting of vehicle/bike registration numbers of illegal users. Experience on the Murray to the Mountains Rail Trail was that motorbikes tended to use the same sections at the same time – enforcement was therefore relatively easy.
Ongoing maintenance costs Who is responsible? Who will pay? What effect will it have on rates?	**Comments** • There are often concerns about the capacity of Councils to maintain the trail and how it is going to pay for the maintenance. Maintenance is an ongoing responsibility and necessary for a good trail and the costs do need to be met by an organisation (Council or other community groups) – whether it is in capital or human resources. • A trail should be regarded as simply another recreational or community asset provided by the Councils for the benefit and enjoyment of its ratepayers. **Possible solutions** • Preparation of a regularly reviewed Trail Management Plan covering all maintenance issues (including fencing) prepared in advance of construction is critical. The plan will provide a clear definition of who is responsible for what. • Proper design and construction will minimise ongoing maintenance costs. • Focus of maintenance – erosion, vegetation regrowth, weed control and signage damage. • A clear definition of who is responsible for what. • Division of maintenance into regular inspections and simple repairs and once/twice yearly programs undertaking larger jobs such as signage repairs, culvert cleaning or vegetation control. • Hazard inspection program (to limit liability and to define maintenance activities).
Responsibility for policing trail Adjoining landowners are often concerned about undesirable people using the trail and causing a nuisance.	**Comment** • Trails do not attract undesirable people. Adjoining landowners need not be concerned about the typical trail users as they do not cause trouble. They are using the trail for a relaxing and enjoyable outing in an attractive environment, free of motor vehicles.

Table 3: Landowner Concerns and Solutions

	Possible solutions
	• Volunteer or professional trail patrols ranging from informal monthly clean-ups and maintenance crews to daily patrols. • Preparation of a regularly reviewed Trail Management Plan contains a clear definition of who is responsible for what. • Police and/or Council ranger patrols (including on bikes); or by trail manager on regular patrols.

5.2.5 Road Crossings

The road reserves along much of the Great Southern Highway are discontinuous and not always accessible necessitating the need to cross the Great Southern Highway a number of times – an unavoidable feature of the Green route. The limited number of existing (controlled) railway reserve crossings also prevent the trail crossing over from the highway to more attractive road reserves in some locations. Whilst some road reserves may be more attractive than ones chosen, it is impossible to access them due to railway reserves between the Great Southern Highway (and other roads) and the road reserve. It is believed approval for new crossing points will be very difficult if not impossible to obtain.

Road crossings always present challenges. The desired approach is to minimise crossings and allow crossings directly perpendicular to the flow of traffic.

5.2.6 Aboriginal Cultural Heritage

In 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the Southwest by the Western Australian Government and, respectively, the Yued, Whadjuk People, Gnaala Karla Booja, Ballardong People, South West Boojarah #2 and Wagyl Kaip & Southern Noongar groups, and the South West Aboriginal Land and Sea Council (SWALSC). The area the project covers fall within the remit of the ILUA with the Gnaala Karla Booja (Narrogin to Mt Kokeby) and the Ballardong People (Mt Kokeby to Beverley).

A search of the Aboriginal Cultural Heritage Inquiry System (ACHIS) has revealed that the two major rivers the Green route will need to cross (the Avon River and the Hotham River) are both registered aboriginal heritage sites. The Avon River is Aboriginal Cultural Heritage Register Place 15979, while the Hotham River is Aboriginal Cultural Heritage Register Place 27935. Both sites are within land covered by either the Ballardong People Indigenous Land Use Agreement or the Gnaala Karla Booja Indigenous Land Use Agreement. State Government requirements are that the Indigenous Land Use Agreements bind the parties (including 'the State', which encompasses all State Government Departments and certain State Government agencies) to enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and instrumentalities enter into the NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas. It is recommended a NSHA is entered into, and an 'Activity Notice' issued under the NSHA, if there is a risk that an activity will 'impact' (i.e. by excavating, damaging, destroying or altering in any way) an Aboriginal heritage site. The Aboriginal Heritage Due Diligence Guidelines, which are referenced by the NSHA, provide guidance on how to assess the potential risk to Aboriginal heritage. It is envisaged that construction of bridges and boardwalks over waterways will fall within the definition of impacting on sites – notably the two rivers.

The area the project covers also has been subject to a number of heritage surveys for construction works such as bridge work and road works that may be relevant if the trail proceeds.

5.2.7 Cropping of Road Reserve

In certain locations in the Shire of Beverley and the Shire of Brookton, farmers are cropping the road reserve which will be needed for the trail. These issues will mean a general title survey will be needed to establish precise boundaries in these areas if trail construction proceeds. The works tables allow for surveying as appropriate (which will also be used in several locations to determine the precise location of the road reserve/railway reserve boundary). Provisions for new fencing and fencing repairs in these sections has also been included in the project costs; the proponents may determine to cover such fencing costs within the project budget or may seek some other funding solution.

As well as attractive landscapes, the suggested "Orange" route provides access to a range of other historic locations.

SECTION 6: THE RECOMMENDED ROUTES

6.1 Introduction

The indicative routes for the Beverley Narrogin Transport Trail are shown on the plans in Appendix 4. The plans show the routes within each local government (plans 1 - 5) and the routes through major towns that the trail passes through where the route is complicated (Plans 6 - 9 – Brookton; Pingelly; Cuballing; Narrogin). The trail starts in Beverley at Apex Park on the town's eastern outskirts and the route is not complicated while the trail routes are simple through Popanyinning and Yornaning. Whilst the final routes follow a similar alignment to route mapping prepared previously for the Open Houses, there are some refinements and differences based on fieldwork, discussions with the Project Working Group and Open House discussions.

There are a number of key aspects to the indicative route. There are some key overall guiding elements worthy of re-iteration that can be drawn from the issues and challenges that have informed the route selection process. (There are specific issues in some sections that are specific to a certain section or sections; some of these were discussed in Section 5. These are identified in the route discussion).

Key overall guiding elements are:

- There is no ideal or perfect route for either of the two trail routes (the Green route and the Orange route). The routes chosen are designed to deliver a trail that is being sought by the brief and the project partners.
- The best achievable routes have been chosen through towns despite that – in some cases – they are not particularly attractive. A good example is the use of Earl Street North in Narrogin (for both routes). This route takes users past an industrial area – not the most scenic introduction to Narrogin. The Green route into Brookton from the north takes users through rural residential development.
- With respect to the Green route:
  - If ARC Infrastructure would agree to using the existing maintenance track within the railway reserve, and all the road reserves alongside the railway reserve and highway were continuous, a better Green route could be delivered. **This is not the case. The routes chosen are designed to deliver a trail that is being sought by the brief and the project partners.**
  - New trail will need to be constructed for over 81kms of the proposed Green route as a consequence of the existing land tenure arrangement with Arc Infrastructure. **A new trail cannot utilise the railway maintenance track where it is within railway reserve** (the railway is considered an active line).
  - Use of the maintenance track where it is within the road reserve has been included within the route mapping. These are the only locations where the maintenance track can be used.
  - The railway reserve is quite wide in places further limiting route selection options. A good example is on the south side of Brookton alongside William St/Great Southern Highway.
  - Where road reserves are adjoining (continuous) and accessible they have been utilised.
  - The Green route will be built primarily in road reserves alongside the railway reserve and within close proximity to the Great Southern Highway.

- In some instances, the lack of parallel road reserves necessitates the use of the highway verge.
- The road reserves are discontinuous and not always accessible creating the need to cross the Great Southern Highway numerous times – an unavoidable feature of the Green route. The limited number of existing (controlled) railway reserve crossings also prevent the trail crossing over from the highway to more attractive road reserves in some locations. Whilst some road reserves may be more attractive than ones chosen, it is impossible to access them due to railway reserves between the Great Southern Highway (and other roads) and the road reserve. It is believed approval for new crossing points will be very difficult if not impossible to obtain.
- It may be possible in certain locations to avoid some road crossings by negotiating easements with adjoining landholders to provide more direct or parallel routes or minimise crossings. This has not been explored in any detail but each of the project partners should be open to the possibility of altering the green route by use of easement if this addresses any of the issues around railway and road crossings (whilst not compromising other sections of the route which have been carefully planned).
- Clearing for the trail and tree lopping is unavoidable, particularly along narrow roadside verges.
- Lengthy sections of boardwalk will be unavoidable due to seasonal inundation. Fieldwork looked to maximise "high and dry" routes; this was not always possible.

- With respect to the Orange route:
  - Consideration has been given to the best roads to use to avoid heavy agricultural machinery particularly at harvest and seeding times. This has led to the development of spur trails into Pingelly from the east and Cuballing from the west rather than taking users directly into these towns. Unfortunately, no alternative route to the use of Bremner Road taking users south from Beverley has been found (community consultation indicated some concern with this route). However, that particular section has been highlighted as a possible Transport Trail in the *2050 Avon Central Coast Cycling Strategy*.

Initial calculations on the indicative alignment show a trail of approximately 213.3kms for the Orange route. The approximate distance between the towns and villages is as follows:

Beverley – Brookton	52.4kms
Brookton – Pingelly	55.3kms
Pingelly – Popanyinning	31.5kms
Popanyinning – Cuballing	37.7kms
Cuballing – Narrogin	36.4kms

Initial calculations on the indicative alignment show a trail of approximately 101.1kms for the Green route (plus the distance between Beverley Trailhead and Caudle Road). The approximate distance between the towns and villages is as follows:

Beverley-Brookton	31kms + distance between Beverley trailhead and Caudle Road (to be calculated under a separate project)
Brookton – Pingelly	20kms
Pingelly – Popanyinning	16.4kms
Popanyinning – Cuballing	17.3kms
Cuballing – Narrogin	16.4kms

The trail (both routes) connects 6 settlements – Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin and traverses 5 local governments. Given that different partners are involved (and may deliver the project differently), the trail route descriptions are broken up by local government (the plans contained in Appendix 4 are also presented with this division). Descriptions of both the Orange route and the Green route are included. This allows each project partner to be aware of their likely requirements if the trail proceeds. Estimates of probable costs (Section 7) are shown in the same manner.

6.2 Shire of Beverley

Both Orange and Green routes start at the trailhead to be developed in Apex West Park in Beverley taking advantage of existing facilities.

6.2.1 The Orange Route

- Users travel via Lukin Street, Bremner Road and Kokeby East Road to Kokeby. As noted in Section 5.3, no alternative route to the use of Bremner Road taking users south from Beverley has been found. This route aligns with part of the County Peak and Ski Lake Transport Trail as identified in the *Avon Central Coast 2050 Cycling Strategy*.
- At Caudle Road, a connection along a public road reserve from Bremner Road to the Avon River will create a small loop trail when the Commonage Trail is completed (note this is not included in the distance measurements). This is primarily designed as a riding route as it uses Bremner Road.
- Users cross the Great Southern Highway at Kokeby and continue west on Dale Kokeby Road to the Shire boundary (a distance of just under 10kms).

Within the Shire of Beverley, the Orange route covers approximately 25.2kms.

6.2.2 The Green Route

- The Green route utilises the planned Commonage Trail from the trailhead to Caudle Road. No definite route is shown on the relevant plan as this is currently subject to detailed planning by the Shire of Beverley (a similar approach is taken to the estimate of costs for this section).

  South of Caudle Road, the trail should be developed on Vacant Crown Land that runs along the Avon River from Caudle Road to Kokeby East Road (as shown below). This route was requested by officers of the Shire of Beverley (the alternative is to develop the trail further along the river as far south as Southern Branch Road though this will involve the construction of two crossings of the Avon River).
- This route along the Avon River may be subject to inundation and may cause concern for adjoining landholders (as discussed in Section 5.3). It is however public land and, in many places, is already separated from adjoining private landholdings by a fence.
- This route addresses concerns about walking (in particular) along Bremner Road as noted in the consultation.
- The route finalisation process will require preparation of a trail development plan for the 18km length from Caudle Road to Kokeby East Road. This process should include walking the route to determine a precise location and ensuring that an Aboriginal heritage survey is conducted during this process (with a representative of local Noongar).
- Users would walk or ride along Kokeby East Road to the Great Southern Highway then turn south along trail constructed on the eastern side of the highway south of Kokeby. Users would travel along the Great Southern Highway to a point approximately 300 metres south of Southern Branch Road before crossing onto the western side and continue to travel along the verge on a trail constructed close to the road reserve boundary (the road reserve for much of this section is double fenced).
- Another 1.9kms bring users to an existing railway crossing which would be used to cross to the western side of the railway track. A journey of approximately 1.2kms brings users to the Shire boundary.
- Signage will be necessary to manage interactions between the trail and the railway line in the southern section.

Within the Shire of Beverley, the Green route covers approximately 16.4kms plus an unknown distance between the trailhead at Apex Park in Beverley and Caudle Road (which is subject to more detailed planning for the Commonage Trail which will identify a route and distance).


Green route could be located alongside Avon River within VCL and various reserves, south from Caudle Rd as far as Kokeby East Rd - and beyond.
VCL continues south of Kokeby East Rd but does not extend beyond boundary of Shire of Beverley and Shire of Brookton.
Lukin Street
Reserve
Caudle Rd
Bremner Rd
Commonage Trail (proposed)
Avon River
Railway
Reserve
Vacant Crown Land
Kokeby East Rd
Patten Rd
Road reserve
Kokeby
Yenyening Rd
Railway
Great Southern Highway
Southern Branch Rd
VCL ends here
0
1.5
3
kilometres

6.3 Shire of Brookton

6.3.1 The Orange Route

- From the Shire boundary, users travel along Dale Kokeby Road to Dale Corberding Road and Roses Road to Youraling Road and into Brookton. Navigating through Brookton requires a series of turns but users are guided by directional markers to the Brookton trailhead at Pioneer Park.
- From Pioneer Park, the trail utilises several in-town roads (Robinson Rd, Williams St, Tiller St and Bodey St) to link with Hall Road and head south-west from Brookton to Kulyaling (at the Shire boundary).

Within the Shire of Brookton, the Orange route covers approximately 47.3kms.

6.3.2 The Green Route

SHIRE BOUNDARY TO BROOKTON

- North of Brookton, the Green route is complicated by options along Youraling Road.
- From the Shire boundary to the crossing of the railway line at Youraling Road, the trail is developed in road reserve along Youraling Road. There are low spots here where elevated trail (extra fill) is required.
- Between the railway crossing at Youraling Road and the intersection of Youraling Road and Roses Road, water inundation of off-road options becomes an issue. There are three options:
  - **Option A:** The trail (noting it is for walkers and cyclists and this section is shared with the Orange route) could be "developed" (signposted) as entirely on-road.
  - **Option B:** The trail could be constructed entirely off-road on the western verge and built to deal with seasonal inundation. This is the costed option in Section 7 – the other two options would be cheaper.
  - **Option C:** The trail could be developed as a combination of on-road and offroad; on-road sections could be used in sections where it is extremely difficult (and expensive) to construct an off-road trail due to water inundation.
- Between the intersection of Youraling Road/Roses Road and Bilya Rise (an unconstructed road reserve some 700m north of Brookton), the trail would be constructed as a single track within a road reserve on the eastern side of the railway line on the boundary with farmland. A 10m bridge would be required along this route.
- Construction of a trail on Bilya Rise would involve using the road reserve (the road is constructed and named Bilya Rise at its eastern junction with Great Southern Highway but is unconstructed at its western end) and crossing the Avon River South (requiring a 30m bridge). New trail (and fencing) would be needed for approximately 700 metres. A new trail would turn south along road reserve and connect with Koorrnong Drive (again using new trail constructed in road reserve). These connections may cause concern amongst adjoining landholders.
- The verge of the Brookton Highway and the existing footpath network will connect users from Koorrnong Drive to the trailhead at Pioneer Park. Plan 6 (Appendix 4) shows the routes within Brookton.
- Signage and fencing will be necessary to manage interactions between the trail and the railway line.
- From the Shire boundary to Brookton trailhead on the Green route is an approximate distance of 14.8kms.

BROOKTON TO KULYALING *(Shire boundary)*

- Leaving Pioneer Park, users travel along Robinson Road, cross Williams St and head south along the existing footpath network to King Street. Turning west on King Street, users would then travel south along White Street (a quiet street) to its end and then cross the highway north of Yeo Street. Plan 6 (Appendix 4) shows this route in detail.
- The trail would be constructed in road reserve east of the railway to Kulyaling (some 9kms).
- This section will require 5 boardwalks (Glenester Brook, Avery Brook, Keelocking Creek where 2 are required and over a drain line north of Kulyaling). The 4 boardwalks over the named creeks could be substituted as floodways/constructed fords (the latter is a term used in the Department of Water's publication Crossing Creeks: Stream crossings on farms 2008).
- New boundary fencing will also be required as there is cropping taking place either side of Copping Road and south of McCabe Road.
- Signage and fencing will be necessary to manage interactions between the trail and the railway line.
- From the Brookton trailhead to Kulyaling Road (the Shire boundary) on the Green route is an approximate distance of 11.3kms.

Within the Shire of Brookton, the Green route covers approximately 26.1kms.

The "Orange" route passes through the regionally significant Dryandra Woodland National Park.

6.4 Shire of Pingelly

6.4.1 The Orange Route

- From the Shire boundary, users travel east along Kulyaling and Bassendean Roads turning southeast on Moorumbine Road where they pass the historic townsite of Moorumbine. As noted in Section 5.3, feedback about heavy vehicle use by a concerned cyclist means the recommended route uses only a small distance on Wickepin-Pingelly Road (which is unavoidable) before users turn south on Old Wickepin Road, travel west on Yenellin Road into Pingelly through the main street to the trailhead at Pioneer Park (this route into Pingelly was requested by the Shire of Pingelly).
- Users would share the Green route out of Pingelly to Thompson Road, would travel 350 metres along the Great Southern Highway to Zig Zag Road, turn west on Zig Zag road and cross the Shire boundary on Merwanga Road over the Hotham River. Within the Shire of Pingelly, the Orange route covers approximately 49.1kms.

6.4.2 The Green Route

KULYALING TO PINGELLY

- From Kulyaling to Ford Road, the trail is on the western side of the Great Southern Highway as the road reserve on the eastern side of the highway is discontinuous.
- The trail crosses the highway and the railway at Ford Rd (at the existing railway crossing point on Ford Rd) and continue on the eastern side of the railway to Pingelly.
- In Pingelly, the trail will be on Marconi Street and continue through the reserve south of Review Street to the trailhead at Pioneer Park. The exact location of the trail through the reserve depends on the reserve's future use. The recommended route within Pingelly is shown on Plan 7 (Appendix 4).
- This section will require a boardwalk over Nimbediling Creek.
- Signage and fencing will be necessary to manage interactions between the trail and the railway line.
- From the Shire boundary to the Pingelly trailhead on the Green route is an approximate distance of 8.7kms.

PINGELLY TO TREFORTS ROAD *(Shire Boundary)*

The preferred route between Pingelly and the Shire boundary at Treforts Road illustrates the difficulty of finding continuous, usable and accessible road reserve parallel to the Great Southern Highway. South of Rickard Road (on Pingelly's southern outskirts), a trail cannot access the road reserve on the eastern side of railway line and the Great Southern Highway (as there is no existing railway crossing). The narrowness of the highway reserve and the location of the road/railway reserve boundary add to the difficulties of determining a trail route. The only options are both poor and are both on the verge of Great Southern Highway; this is undesirable but necessary. Clearing will be needed along the western verge and barbed wire also forms the boundary fence presenting a hazard for trail users particularly in such a narrow space. On the eastern verge, any trail would need to run through the spoon drain (note barbed wire on western edge). Again, it needs to be emphasised that a trail **cannot** use the railway reserve.

Key elements are:

- Existing in-town paths and a new trail along Quadrant Street lead to a crossing of the Great Southern Highway at Rickard Road (also known as Paragon Street on some mapping applications). Plan 7 (Appendix 4) shows this route in detail. New trail can be weaved through the reserve south of Rickard Road for 1,100 metres.
- The trail needs to be developed on the western side of the highway through a very thin verge (there are no other options) for 1,550 metres before reaching a reserve where it can be routed away from the highway's edge (for approximately 1,050 metres). This reserve may be an old town reserve judging by the lot plans found on Landgate.
- The trail will then cross the Great Southern Highway (again, there are no other options) at Thompsons Road and stay within a road reserve on the eastern side of the railway reserve to the Shire boundary at Treforts Road (some gravel track is already in place – maintenance track on the road reserve – and can be used).
- This section will require 2 boardwalks, 1 at the old town reserve as the area is quite inundated and 1 over Thompsons Brook.
- 1 bridge (10 metres) will be required over Mongebin Gully.
- Other measures such as "pipe and fill" and elevated trail are also required to address drain lines and "wet spots".
- Signage will be necessary to manage interactions between the trail and the railway line.
- From the Pingelly trailhead to the Shire boundary on the Green route is an approximate distance of 6.6kms.

Within the Shire of Pingelly, the Green route covers approximately 15.3kms.

6.5 Shire of Cuballing

6.5.1 The Orange Route

- From the Shire boundary on Merwanga Road, users travel south along Merwanga Road, turn east on Williams Road and head into Popanyinning.
- Heading out of Popanyinning on Popanyinning Road West, users travel via Forestry Road and Knights Lane through the very scenic Dryandra Woodland National Park. In the future, it may be possible for users to travel into or traverse the national park away from roads as a plan of management for the reserve may permit some mountain biking. However, at this stage, management directions of the Department of Biodiversity, Conservation and Attractions are unknown, so the route is designated to stay on-road.
- As noted in Section 5.3, the original route into Cuballing from the west proposed using Cuballing West Road then taking users through Cuballing and out on Springhill Road heading west. Feedback about heavy vehicle use heading east from Patmore Feeds to the Great Southern Highway has meant re-consideration of this route. The recommended route now still heads into Cuballing on Cuballing Road West. Users would leave Cuballing on the Green Route as far as Chungamunning Road. They would then turn west onto Chungamunning Road and head towards Springhill Road.
- To avoid potential conflicts with heavy vehicles heading along Springhill Road to the Great Southern Highway from Patmore Feeds, a separate 850 metres of roadside single track would be constructed along Springhill Road. This route (into and out of Cuballing) was at the request of the PWG.
- Trail users on the Orange route would travel along Springhill Road and Nebrikinning Road to the Shire's boundary at Pritchard Road.

Within the Shire of Cuballing, the Orange route covers approximately 64.1kms.

6.5.2 The Green Route

TREFORTS ROAD TO POPANYINNING

- The trail will continue on from Treforts Road staying within a road reserve on the eastern side of the railway reserve to Popanyinning (for approximately 9.8kms).
- This section will require 1 lengthy boardwalk north of Popanyinning.
- A bridge over the Hotham River is required. On site examination determined that the crossing can be achieved by constructing two 10 metre bridges as the "island" in the middle of the stream is very high and was well clear of the river even after a wet winter (2025). The bridges would need to be built at the height of the northern bank.
- Other measures such as elevated trail are also required to address drain lines and "wet spots".
- Tyre and boot cleaning stations at the north and south entrances to the Hotham River Nature Reserve have been listed as an optional extra in the cost estimates; community consultation provided some information on potential dieback risk through this reserve.
- Signage and fencing will be necessary to manage interactions between the trail and the railway line.
- From the Shire boundary to Popanyinning on the Green route is an approximate distance of 9.8kms.

POPANYINNING TO YORNANING

- Trail users will cross the highway and the railway crossing on the southern edge of Popanyinning then travel down the western side of the railway reserve on an existing road reserve to Yornaning.
- Appropriate signposting at the northern entry to Yornaning has been costed to provide links to Yornaning Dam - a highly attractive and developed site for walkers and mountain bikers.
- This section will require 1 boardwalk south of Dents Road as the area is quite wet.
- 1 bridge (6 metres) will also be required over Candy's Creek.
- The armoured crossing already in place over the Hotham River South north of Yornaning is sufficient for the trail.
- Other measures such as "pipe and fill", elevated trail and culverts are also required to address drain lines and "wet spots".
- Signage will be necessary to manage interactions between the trail and the railway line.
- From Popanyinning to Yornaning on the Green route is an approximate distance of 8.9kms.

YORNANING TO CUBALLING

- The consultants have been advised that the CBH bins on the northern outskirts of Yornaning are no longer active so the trail can stay on the western side of the highway through Yornaning. The trail will be developed on the western side of the railway reserve as far south as Watsons Road where it will use the existing railway crossing to cross to the eastern side of the Great Southern Highway. The trail will be constructed along the highway verge.
- On the northern outskirts of Cuballing, there is a road reserve running east-west which connects to Corrie Street. The preferred trail route would see a trail constructed within the road reserve to connect to the northern end of Corrie Street. This connection may cause concern for the adjoining landholder.
- Plan 8 (Appendix 4) shows this route in detail.
- At the southern end of Corrie Street, new trail would be constructed through a road reserve to Carton Street. The trail would turn east on Carton Street (constructed) to the road reserve named as Derby Street (an unconstructed road). The trail would be constructed along Derby Street to connect to Cuballing East Street and use the town network to access the trailhead at Cuballing Youth and Community Park.
- This section will require 1 boardwalk over the South Hotham River.
- Other measures such as "pipe and fill" and elevated trail are also required to address drain lines and "wet spots" particularly around Watsons Brook.
- Signage will be necessary to manage interactions between the trail and the railway line.
- From Yornaning to Cuballing on the Green route is an approximate distance of 8.4kms.

CUBALLING TO SHIRE BOUNDARY

- The trail will cross the Great Southern Highway and the railway at Alton Street on Cuballing's southern edge. Plan 8 (Appendix 4) shows this route in detail.
- The trail will be developed within a road reserve on the western side of the railway reserve to Chungamunning Road where it will cross the railway and be developed along the western verge of the Great Southern Highway for approximately 1.6kms. Users will then turn west on an unnamed road, cross the railway line (on an existing controlled crossing) and head south on road reserve west of the railway line to the Shire boundary.
- Pipe and fill will be required in 4 locations between Chungamunning Road and the unnamed road.
- Signage and fencing will be necessary to manage interactions between the trail and the railway line.
- From Cuballing to the Shire boundary on the Green route is an approximate distance of 7.1kms.

Within the Shire of Cuballing, the Green route covers approximately 34.2kms.

6.6 Shire of Narrogin

6.6.1 The Orange Route

- From the Shire boundary, users travel along Pritchard Road, Congelin Narrogin Road, Higham Road and Farrelly Road before joining the maintenance track which is constructed on road reserve (and is identified as Hillside Road on some mapping).
- Users then use several in-town roads (Earl Street North, Clayton Road and Federal Street) to link to the existing at-grade railway crossing southeast of the BP service station and to the trailhead at the Narrogin Visitor Information Centre.

Within the Shire of Narrogin, the Orange route covers approximately 19kms.

6.6.2 The Green Route

- Users stay on the western side of the railway line to Farrelly Road. The Green and Orange route merge at this point on to the existing maintenance track on Hillside Road and then into Narrogin on the existing road and path network.
- Plan 9 (Appendix 4) shows the route through Narrogin in more detail.
- "Pipe and fill" and elevated trail are required to address drain lines and "wet spots".
- Signage and fencing will be necessary to manage interactions between the trail and the railway line at Farrelly Road.

Within the Shire of Narrogin, the Green route covers approximately 9.3kms.

SECTION 7: ESTIMATE OF PROBABLE COSTS

7.1 Basis of Cost Estimates

The investigations undertaken during the fieldwork associated with this project and the consultation carried out enable a reasonable indication of the work required to bring about the development of the proposed Beverley Narrogin Transport Trail project.

This report is essentially a Feasibility Study, with sufficient attention given to determining the construction/ development activity needed to bring the trail to fruition.

The costs of construction of the proposed trail are an estimate of probable costs only. Accurate costs can only be determined, firstly, by the compilation of more detailed works lists accomplished through a detailed trail development plan for the proposed trail and, secondly, via a competitive tendering process.

The costs for development of the trail (bridges, trail construction, etc.) are based on conditions likely to be encountered during construction. As accurate measurements have not been made, it is not possible to be precise in quantifying costs. It is only after a detailed trail development plan is prepared (including a full traverse of the proposed trail route) that more definite quantities and costs can be provided.

It is possible that the Councils' works crews could accomplish construction at a better rate, given their resourcefulness, their workforce is local and is without the need for mobilisation or demobilisation costs. The cost and availability of local accommodation for contractors may result in a higher cost.

The estimates of probable costs are based on recent relevant construction costs from other trail projects. Real-life costs will depend on several factors, including the state of the economy, the extent of 'advertising' of construction tenders (or the competitiveness / efficiencies of the Councils' crews), the availability and competitiveness of contractors, the rise and fall in materials costs, the choice of materials used in construction and final design details.

Tenders submitted by construction contractors may vary significantly from the estimated costs in the table contained within this report.

There are ways in which this total expense can be reduced. For example, fencing costs can be reduced by allowing adjoining landowners to erect the fences themselves, something that they are adept at doing. Many trail projects have provided fencing materials to the adjoining landowners, and the adjoining landowners then erect the fences to their own specifications and standards.

Estimated costs are as of October 2025. An additional 3.5% should be added to each individual total per year compounded. Recent press articles on general construction issues suggests the current construction industry price escalator is between 5% to 7% per annum. It may be appropriate to consider this figure when applying for construction funding should the project proceed and dependent on the timetable.

There are minimal costs involved in developing the on-road cycling route (the Orange route). Costs are primarily associated with providing the appropriate signage at trailheads and at all intersections/decision points for trail users. The costs for the development of signage and other relevant facilities at the nominated trailheads are also included within these tables – the trailheads will serve both the Orange and the Green routes. The full recommended sign log can be found in Appendix 3.

As noted in Section 6, the trail (both routes) connects 6 settlements and runs through 5 Local Governments. The trail route costings are broken up by Local Government (the plans contained in Appendix 4 are also presented with this division). In some locations for the Orange route, the suggested road forms part of a Shire boundary so costs may be allocated to the "wrong" shire. This allows each project partner to be aware of their likely requirements if the trail proceeds.

Wet conditions on the verge of along Youraling Rd will result in expensive trail construction.

The "Green" route crosses numerous watercourses, requiring a variety of crossing treatments.

7.2 Works Tables: Shire of Beverley

(REFER TO PLAN 1 IN APPENDIX 4)

Table 4: Shire of Beverley - The Orange Route

Ref #	Works Item	$
1	**Trailhead: Located at Apex Park, Beverley** • Install trailhead sign (double-sided brown chevron) on Lukin St ($2,000). • Prepare and install trailhead map panel ($8,000). • Install 1 trail directional marker ($400). • Install bike parking rails ($3,000).	13,400
2	**On-road signage:** • Install 5 trail directional markers on the road network ($2,000) (some of these are single sided while some are double sided – cost is averaged). • Install 4 "cyclists on road" signs ($2,000)	4,000
3	Allowance for preparation and installation of interpretive signage (at locations such as old town sites and other points of interest to be determined by trail manager and local historians) (3 signs).	10,500
	Sub Total	***27,900***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	700
	Contingency amount (15%).	4,185
	Project management (5%).	1,395
	TOTAL (NOT INCLUDING GST)	**34,180**

Table 5: Shire of Beverley - The Green Route

Ref #	Works Item	$
1	**TRAIL CONSTRUCTION** Construct new trail between Apex Park and Caudle Rd. Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m.	Not costed. Subject to separate planning process being undertaken by Shire of Beverley (October 2025)
2	Construct new trail between Caudle Rd and Shire Boundary (16,400m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum of 1.2m – 1.5m.	**738,000**
3	Extra fill to cater for "wet" spots in trail route and create elevated trail (filling includes adding single pipes to let water flow under the elevated trail) (400 metres in 2 sections between existing railway crossing and the Shire boundary).	**6,000**
4	**CLEARING** **Light clearing (15,200m) ($45,600):** • Caudle Road to Kokeby Road (10,000m). • Great Southern Highway/Kokeby Road to existing railway crossing (5,200m). **Moderate clearing (1,200m) ($6,000):** • Existing railway crossing to Shire boundary.	**51,600**
5	**FENCING – PRIVATE PROPERTY** Allowance for boundary fencing between trail and private property. • Allowance for repair of 20% of existing fencing between river reserve and private property (Caudle Rd to Kokeby East Rd) ($30,000). • Allowance for re-arrangement of fencing of railway crossing at southern end of section – Shire boundary ($10,000.)	**40,000**
6	**OTHER WORKS – PRIVATE PROPERTY** Allowance for landowner requests (e.g. additional fencing and vegetation screening).	**3,000**
7	Allowance for surveying of property boundaries/fencing alignment as relevant (through VCL) ($3,000/km).	**30,000**
8	Allowance for purchase and installation of additional signage - notably "No Trespassing" signs (especially critical in Caudle Rd to Kokeby East Rd section) (25).	**2,500**

Table 5: Shire of Beverley - The Green Route

Ref #	Works Item	$
9	**WATERCOURSE CROSSINGS** Allowance for bridge crossings.	0
10	Allowance for culverts.	0
11	Allowance for boardwalks.	0
12	Allowance for armoured crossings.	0
13	**CHICANES AND ACCESS CONTROL** Install chicane and management access gate on north side of Kokeby East Rd.	2,500
14	**ROAD CROSSING SIGNAGE** **Road crossing:** • Install "Road Ahead" and "Give Way" signs on trail on one side of track at Kokeby East Rd ($400). • Install "Trail crossing ahead" on both sides of crossing on Kokeby East Rd ($900). • Install management signage at trail entrance on one side of Kokeby East Rd ($1,000).	2,300
15	**Road crossing:** • Install "Road Ahead" and "Give Way" signs on trail on both sides of track at Yenyening Lakes Rd ($800). • Install "Trail crossing ahead" on both sides of crossing on Yenyening Lakes Rd ($900).	1,700
16	**Road crossing:** • Install "Road Ahead" and "Give Way" signs on trail on both sides of track at Southern Branch Rd ($800). • Install "Trail crossing ahead" on both sides of crossing on Southern Branch Rd ($900).	1,700
17	**Road crossing:** • Install "Road Ahead" and "Stop" signs on trail on both sides of track at Great Southern Hwy ($800). • Install "Trail crossing ahead" on both sides of crossing on Great Southern Hwy ($900).	1,700
18	Road verges signage – Install 6 pedestrian/cyclist aware signs along Kokeby Road (3 on either side).	3,000
19	**Install management signage at appropriate locations:** • South of Great Southern Hwy crossing (x1). • Crossing of railway at existing crossing point (x1).	2,000

Table 5: Shire of Beverley - The Green Route

Ref #	Works Item	$
20	**RAILWAY MAINTENANCE TRACK – SPECIAL PROVISIONS** Install No Trespassing signs at existing crossing point of railway (x2).	1,000
21	Install large Black and White chevron signs at existing crossing point of railway to ensure users do not veer onto railway maintenance track within railway reserve (x2).	2,000
22	Exclusion fencing.	0
23	**MISCELLANEOUS ITEMS** Allowance for weed spraying before/during construction.	3,000
24	Allowance for preparation and installation of interpretive signage (at locations to be determined by trail manager and local historians) (3 signs).	10,500
25	Allowance for Trail Directional Markers (incorporating emergency markers) to be placed along trail every 1km and at decision points (20 in total).	8,000
26	Allowance for installation of trailside furniture (e.g. seats) at locations to be determined by trail manager (3 seats – along Avon River).	1,800
27	Allowance for purchase and installation of additional signage as needed such as: • Regulatory signage on trail (Shared Path; "No Trail Bikes"; "Authorised Users Only"); • Road name signs; • Trail name signs; • Local attractions sign; and • Miscellaneous signs (Keep Out etc.)	2,000
28	Allowance for traffic management (4 remote road crossings).	8,000
29	Allowance for cable locators at road crossings (4 remote road crossings).	4,000
30	Allowance for boot/bike tyre cleaning stations.	0
31	Allowance for offset revegetation.	10,000
32	Allowance for detailed trail development plan and route selection (incorporating use of Noongar representatives and Aboriginal Heritage survey) between Caudle Road and Kokeby East Road.	15,000
	Sub Total	***951,300***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	23,780
	Contingency amount (15%).	142,695
	Project management (5%).	47,565
	TOTAL (NOT INCLUDING GST)	**$1,165,340**

Vacant Crown Land over the Avon River provides opportunity for trail construction, away from busy roads.

7.3 Works Tables: Shire of Brookton

(Refer to Plan 2 and Plan 6 in Appendix 4)

Table 6: Shire of Brookton - The Orange Route

Ref #	Works Item	$
1	**Trailhead: Located at Pioneer Park, Brookton** • Install trailhead sign (double-sided brown chevron) on Robinson Rd ($2,000). • Prepare and install trailhead map panel ($8,000). • Install 1 trail directional marker ($400). • Install bike parking rails ($3,000).	13,400
2	**On-road signage:** • Install 22 trail directional markers on the road network ($8,800) (some of these are single sided while some are double sided – cost is averaged). • Install 8 "cyclists on road" signs ($4,000).	12,800
3	Allowance for preparation and installation of interpretive signage (at locations such as old town sites and other points of interest to be determined by trail manager and local historians) (5 signs).	17,500
	Sub Total	***43,700***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	1,090
	Contingency amount (15%).	6,555
	Project management (5%).	2,185
	TOTAL (NOT INCLUDING GST)	**$53,530**

Table 7: Shire of Brookton - The Green Route

Ref #	Works Item	$
1	**TRAIL CONSTRUCTION** Construct new trail between Beverley/Brookton Shire boundary and Brookton (13,700m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m. *(Note: no new trail needed within Brookton from Koorrnong Rd/Brookton Hwy to trailhead – town paths in use).*	616,500
2	Construct new trail between Brookton and Shire Boundary (9,500m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m.	427,500
3	Extra fill to cater for "wet" spots in trail route and create elevated trail (filling includes adding pipes to let water flow under the elevated trail) (3,700 metres). • North of Youraling Rd crossing (300m) ($4,500). • Between Youraling Rd (where it crosses the railway line) and Roses Rd (3,400 metres of extra fill including 6 single pipes). Costing based on Option B: The trail could be constructed entirely off-road on the western verge and built to deal with seasonal inundation as discussed in Section 6.3.2) ($51,000).	55,500
4	**CLEARING** **No clearing (6,900 metres):** • Bilya Rd to Brookton Trailhead (2,700m). • Brookton Trailhead to Great Southern Hwy crossing (1,800m). • Copping Rd south (1,300m). • McCabe Rd to Existing Railway Crossing #2 (500m) • Kulyaling Track to Kulyaling (600m) **Light clearing (6,400 metres) ($19,200):** • Roses Rd to Bilya Rd connection (5,400m). • Bilya Rd (intersection with Roses Rd to east side of Avon River) (500m). • Yeo Rd to Council dump (500m). **Moderate clearing (12,800 metres) ($64,000):** • Beverley/Brookton Shire boundary to Roses Rd (6,200m). • Great Southern Hwy crossing to Yeo Rd (100m). • Council dump to Copping Rd (2,500m) • South of Copping Road to McCabe Rd (2,000m) • Existing Railway Crossing #2 to Kulyaling Track (2,000m).	83,200

Table 7: Shire of Brookton - The Green Route

Ref #	Works Item	$
5	**FENCING – PRIVATE PROPERTY** Allowance for boundary fencing between trail and private property (12,150m). • New fencing (one side) between Shire's northern boundary and Youraling Rd (1,000m) ($25,000). • New fencing (one side) either side of Glenroy Station as road reserve is being cropped by adjoining farmer but will need fencing (existing fence could be relocated) (5,400m) ($135,000). • New fencing (both sides) along Bilya Rd and Koorrnong Dve (unconstructed roads on road reserves) (2,000m) ($100,000). • New fencing (one side) at Copping Rd (road reserve is cropped north and south of road crossing) (1,300m) ($32,500). • New fencing (one side) south from McCabe Rd (road reserve is being cropped) (450m) ($11,250).	303,750
6	**OTHER WORKS – PRIVATE PROPERTY** Allowance for landowner requests (e.g. additional fencing and vegetation screening).	5,000
7	Allowance for purchase and installation of additional signage -notably "No Trespassing" signs (20).	2,000
8	**WATERCOURSE CROSSINGS** Allowance for 1 x 10m bridge crossing of Avon River on eastern side of trail south of Roses Rd.	60,000
9	Allowance for 1 x 30m bridge crossing of Avon River South at Bilya Rd.	180,000
10	Allowance for culverts.	0
11	Allowance for 200 metre boardwalk north of Roses Rd on western side of Youraling Rd. Costing based on Option B: The trail could be constructed entirely off-road on the western verge and built to deal with seasonal inundation as discussed in Section 6.3.2.	310,500
12	Allowance for 30 metre boardwalk south of Roses Rd on eastern side of Youraling Rd.	46,575
13	Allowance for 20 metre boardwalk (or floodway) over Glenester Brook.	31,050 *(Floodway/ bypass – 18,000)*
14	Allowance for 15 metre boardwalk (or floodway) over Avery Brook.	23,290 *(Floodway/ bypass – 13,500)*

Table 7: Shire of Brookton - The Green Route

Ref #	Works Item	$
15	Allowance for 2 x 25 metre boardwalks (or floodways) over Keelocking Creek.	77,625 *(Floodway/ bypass – 45,000)*
16	Allowance for 10 metre boardwalk over drain line north of Kulyaling Rd.	15,525
17	Allowance for 5m armoured crossing over Wabbing Creek.	5,000
18	**CHICANES AND ACCESS CONTROL** Install chicane and management access gates.	0
19	**ROAD CROSSING SIGNAGE** **Road crossing:** • Install "Road Ahead" and "Give Way" signs on trail on both sides of track at Roses Rd and Youraling Rd ($800). • Install "Trail crossing ahead" on Roses Rd and Youraling Rd ($900).	1,700
20	**Road crossing:** • Install "Road Ahead" and "Stop" signs on trail on both sides of track at Great Southern Hwy on southern outskirts of Brookton (near Yeo Rd) ($800). • Install "Trail crossing ahead" on Great Southern Hwy ($900).	1,700
21	**Road crossing:** • Install "Road Ahead" and "Give Way" signs on trail on both sides of track at Yeo Rd ($800). • Install "Trail crossing ahead" on both sides of crossing on Yeo Rd ($900).	1,700
22	Road verges signage – Install 2 pedestrian/cyclist aware signs on Brookton Hwy between Avon River and Reynolds St.	1,000
23	**Install management signage at appropriate locations:** • Crossing of railway at existing crossing point – Youraling Rd and McGrath Rd. • Intersection of Brookton Hwy and Koorrnong Rd (heading north. • Crossing of railway at existing crossing point – Yeo Rd.	3,000

Table 7: Shire of Brookton - The Green Route

Ref #	Works Item	$
24	**RAILWAY MAINTENANCE TRACK – SPECIAL PROVISIONS** Install No Trespassing signs at existing crossing point of railway (x11) .	5,500
25	Install large Black and White chevron signs at existing crossing point of railway to ensure users do not veer onto railway maintenance track within railway reserve (x8).	8,000
26	Exclusion fencing - 100 metres either side of road crossing (at Youraling Rd and McGrath Rd) as a visual cue.	24,000
27	Exclusion fencing - 100 metres at road crossing (at Yeo Rd) as a visual cue.	24,000
28	Exclusion fencing - 100 metres at road crossing (at Kulyaling Rd) as a visual cue.	24,000
29	**MISCELLANEOUS ITEMS** **Allowance for surveying of property boundaries/fencing alignment as relevant ($3,000/km):** • Railway line and road reserve north of Brookton (allow 10kms). • Railway line and road reserve south of Brookton (allow 10kms).	60,000
30	Allowance for weed spraying before/during construction.	3,000
31	Allowance for preparation and installation of interpretive signage (at locations to be determined by trail manager and local historians) (4 signs).	14,000
32	Allowance for Trail Directional Markers (incorporating emergency markers) to be placed along trail every 1km and at decision points (13) in Brookton (37 in total).	14,800
33	Allowance for installation of trailside furniture (e.g. seats) at locations to be determined by trail manager (2 seats).	1,200
34	**Allowance for purchase and installation of additional signage as needed such as:** • Regulatory signage on trail (Shared Path; "No Trail Bikes"; "Authorised Users Only"); • Road name signs; • Trail name signs; • "No Trespassing" signs; • Local attractions sign; and • Miscellaneous signs (Keep Out etc.).	3,000
35	Allowance for traffic management (5 remote road crossings).	10,000

Table 7: Shire of Brookton - The Green Route

Ref #	Works Item	$
36	Allowance for cable locators at road crossings (5 remote road crossings).	**5,500**
37	Allowance for boot/bike tyre cleaning stations.	**0**
38	Allowance for offset revegetation.	**10,000**
39	Allowance for delineator posts separating users on Brookton Hwy between Avon River south crossing and existing footpath west of Reynolds St (100m).	**1,000**
	Sub Total	***2,459,615***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	**61,490**
	Contingency amount (15%).	**368,940**
	Project management (5%).	**122,980**
	TOTAL (NOT INCLUDING GST)	**3,013,025**

Surveying of property boundaries, and new fencing, will be required in some locations.

7.4 Works Tables: Shire of Pingelly

(Refer to Plan 3 and Plan 7 in Appendix 4)

Table 8: Shire of Pingelly - The Orange Route

Ref #	Works Item	$
1	Trailhead: Located at Pioneer Park on Brown St, Pingelly: • Install trailhead sign (double-sided brown chevron) on Brown St ($2,000). • Prepare and install trailhead map panel ($8,000). • Install bike parking rails ($3,000).	13,000
2	On-road signage: • Install 16 trail directional markers on the road network ($6,400) (some of these are single sided while some are double sided – cost is averaged). • Install 10 "cyclists on road" signs ($5,000).	11,400
3	Allowance for preparation and installation of interpretive signage (at locations such as old town sites and other points of interest to be determined by trail manager and local historians) (6 signs).	21,000
	Sub Total	***45,400***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	1,135
	Contingency amount (15%).	6,810
	Project management (5%).	2,270
	TOTAL (NOT INCLUDING GST)	**55,615**

Table 9: Shire of Pingelly - The Green Route

Ref #	Works Item	$
1	**TRAIL CONSTRUCTION** Construct new trail between Kulyaling Rd and Pingelly (8,700m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m.	391,500
2	Construct new trail between Pingelly and Treforts Rd (5,100m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m. *(Note: no new trail needed within Pingelly from trailhead to Quadrant St – town paths in use).*	229,500
3	Extra fill to cater for "wet" spots in trail route and create elevated trail (400metres): • Drain line north of Lamard Rd (include double pipe) (200m) ($4,000). • North of Treforts Rd (include single pipe) (200m) ($3,500).	7,500
4	**CLEARING** **No clearing (2,700metres):** • On Marconi St, Pingelly (500metres). • Pingelly trailhead to Rickard Rd/Great Southern Hwy intersection (1,500m). • In reserve north of Thompson Rd (on western side of highway) (1,000m). • Thompson Brook to Treforts Rd (200m). **Light clearing (2,600 metres) ($7,800):** Marconi St/Review St to Brown St, Pingelly (500m). In the reserve alongside Great Southern Hwy south of Rickard Rd, Pingelly and south to old town reserve (along highway) (2,100m). **Moderate clearing (7,100 metres) ($35,500):** • Kulyaling Rd to Nimbediling Creek (2,100m). • Nimbediling Creek to Ford Rd (1,200m). • South of Ford Rd to Marconi St (northern end) (2,000m). • Thompsons Rd to Thompsons Brook (1,800m). **Heavy clearing (2,300 metres) ($23,000):** • Around Nimbediling Creek (200m). • Ford Rd south (2,100m).	66,300

Table 9: Shire of Pingelly - The Green Route

Ref #	Works Item	$
5	**FENCING – PRIVATE PROPERTY** Allowance for boundary fencing between trail and private property. • New fencing (one side) north of Treforts Rd (200m).	5,000
6	**OTHER WORKS – PRIVATE PROPERTY** Allowance for landowner requests (e.g. additional fencing and vegetation screening).	2,000
7	Allowance for purchase and installation of additional signage - notably "No Trespassing" signs (10).	1,000
8	**WATERCOURSE CROSSINGS** Allowance for 1 x 10m bridge crossing at Mongebin Gully. Pipe and fill is also needed on the bridge approaches (10m on northern side and 20m on southern side – each needs a single pipe).	64,000
9	**Allowance for culverts/pipes:** • 3 pipes in 3 locations in Pingelly town section (along Quadrant St). • 6 pipes in 6 locations south of Rickard St along Great Southern Hwy verge.	18,000
10	Allowance for 200 metre boardwalk over Nimbediling Creek.	310,500
11	Allowance for 100 metre boardwalk through old town reserve north of Thompson Rd (on western side of highway).	155,250
12	Allowance for 10 metre boardwalk over Thompsons Brook.	15,525
13	Allowance for armoured crossings.	0
14	**CHICANES AND ACCESS CONTROL** Install chicane and management access gates.	0
15	**ROAD CROSSING SIGNAGE** **Road crossing:** • Install "Road Ahead" and "Stop" signs on trail on both sides of track at Great Southern Hwy south of Kulyaling ($800). • Install "Trail crossing ahead" on Great Southern Hwy south of Kulyaling ($900).	1,700
16	**Road crossing:** • Install "Road Ahead" and "Stop" signs on trail on both sides of track at Great Southern Highway at Ford Rd ($800). • Install "Trail crossing ahead" on Great Southern Hwy at Ford Rd ($900).	1,700

Table 9: Shire of Pingelly - The Green Route

Ref #	Works Item	$
17	**Road crossing:** • Install "Road Ahead" and "Stop" signs on trail on both sides of track at Great Southern Hwy/Rickards Rd ($800). • Install "Trail crossing ahead" on Great Southern Hwy/Rickards Rd ($900). • Fill over table drain and install pipe on both side of road ($4,000).	5,700
18	**Road crossing:** • Install "Road Ahead" and "Stop" signs on trail on both sides of track at Great Southern Hwy/Thompsons Rd ($800). • Install "Trail crossing ahead" on Great Southern Hwy/Thompsons Rd ($900). • Fill over table drain and install pipe on both side of road ($4,000).	5,700
19	Road verges signage	0
20	Install management signage at appropriate locations: • South of Great Southern Hwy crossing points (x4).	4,000
21	**RAILWAY MAINTENANCE TRACK – SPECIAL PROVISIONS** Install No Trespassing signs at existing crossing point of railway (x7).	3,500
22	Install large Black and White chevron signs at existing crossing point of railway to ensure users do not veer onto railway maintenance track within railway reserve (x6).	6,000
23	Exclusion fencing - 100 metres at either side of road crossing (at Ford Rd) as a visual cue.	24,000
24	Exclusion fencing - 100 metres at either side of road crossing (at Marconi St) as a visual cue.	24,000
25	Exclusion fencing - 100 metres either side of road crossing (at Thompson Rd) as a visual cue.	24,000
26	Exclusion fencing - 100 metres either side of road crossing (at Treforts Rd) as a visual cue.	24,000
27	**MISCELLANEOUS ITEMS** Allowance for surveying of property boundaries/fencing alignment as relevant ($3,000/km).	0
28	Allowance for weed spraying before/during construction.	3,000
29	Allowance for preparation and installation of interpretive signage (at locations to be determined by trail manager and local historians) (5 signs).	17,500

Table 9: Shire of Pingelly - The Green Route

Ref #	Works Item	$
30	Allowance for Trail Directional Markers (incorporating emergency markers) to be placed along trail every 1km and at decision points (15) in Pingelly (31 in total).	12,400
31	Allowance for installation of trailside furniture (e.g. seats) at locations to be determined by trail manager.	0
32	Allowance for purchase and installation of additional signage as needed such as: • Regulatory signage on trail (Shared Path; "No Trail Bikes"; "Authorised Users Only"); • Road name signs; • Trail name signs; • "No Trespassing" signs; • Local attractions sign; and • Miscellaneous signs (Keep Out etc.)	2,000
33	Allowance for traffic management (4 remote road crossings).	8,000
34	Allowance for cable locators at road crossings (4 remote road crossings).	4,000
35	Allowance for boot/bike tyre cleaning stations.	0
36	Allowance for offset revegetation.	10,000
	Sub Total	***1,447,275***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	36,180
	Contingency amount (15%).	217,090
	Project management (5%).	72,365
	TOTAL (NOT INCLUDING GST)	**1,772,910**

The narrow verge of the Great Southern Highway will need to be used south of Pingelly due to lack of options.

7.5 Works Tables: Shire of Cuballing

(Refer to Plan 4 and Plan 8 in Appendix 4)

Table 10: Shire of Cuballing - The Orange Route

Ref #	Works Item	$
1	**Trailhead: Located at Cuballing Youth and Community Park:** • Install trailhead sign (double-sided brown chevron) on Great Southern Hwy ($2,000). • Prepare and install trailhead map panel ($8,000). • Install bike parking rails ($3,000).	13,000
2	**On-road signage:** • Install 15 trail directional markers on the road network ($6,000) (some of these are single sided while some are double sided – cost is averaged). • Install 8 "cyclists on road" signs ($4,000).	10,000
3	Allowance for preparation and installation of interpretive signage (at locations such as old town sites and other points of interest to be determined by trail manager and local historians) (8 signs).	28,000
4	Allowance for 850m of roadside single track along Springhill Rd between Chungamunning Road and Patmore Feeds.	11,050
	Sub Total	***62,050***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	1,550
	Contingency amount (15%).	9,305
	Project management (5%).	3,105
	TOTAL (NOT INCLUDING GST)	**76,010**

Table 11: Shire of Cuballing - The Green Route

Ref #	Works Item	$
1	**TRAIL CONSTRUCTION** Construct new trail between Treforts Rd and Popanyinning (9,800m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m.	441,000
2	Construct new trail between Popanyinning and Yornaning (8,900m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m.	400,500
3	Construct new trail between Yornaning and Cuballing (8,260m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m. *(Note: no new trail needed within Cuballing from Cuballing East Rd to trailhead – town paths in use).*	371,700
4	Construct new trail between Cuballing and Shire Boundary (6,135m). Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m. *(Note: no new trail needed along unnamed road linking Great Southern Hwy with railway reserve south of Chungamunning Rd)*	276,075
3	Extra fill to cater for "wet" spots in trail route and create elevated trail (1,050metres): • Drain line south of Karping Road (include 2 pipes) (500m) ($7,500). • Drain line north of Hotham River crossings (in vegetated reserve) (100m) ($1,500). • Drain line south of Hotham River (include single pipe) (200m) ($3,000). • Within 2.7km section immediately south of Popanyinning associated with culverts (Ref #10): section runs south from Popanyinning to (northern) existing crossing of railway (150m) ($2,250). • Within the 3.3km length south of (northern) existing crossing of railway to Dents Rd associated with culverts (Ref #10) (100m) ($1,500).	15,750

Table 11: Shire of Cuballing - The Green Route

Ref #	Works Item	$
4	**CLEARING** **No clearing (3,560 metres):** • Existing gravel road within road reserve south of Hotham River (1,000 metres). • Existing Railway Crossing (north side of Yornaning) and Existing Railway Crossing (south of Yornaning) (1,300 metres). • Road reserve connecting Great Southern Hwy and Corrie Street, Cuballing (160m). • Cuballing East Rd to trailhead (160m). • Unnamed road linking Great Southern Hwy with railway reserve south of Chungamunning Rd (940m). **Light clearing (23,660 metres) ($70,980):** • Hotham River to existing gravel road (1,300m). • Southern end of existing gravel road to Popanyinning East Rd (4,900m). • Popanyinning to Yornaning (8,900m). • Existing Railway Crossing (south of Yornaning) to Johnston Road (3,300m). • Johnston Rd to road reserve west of Corrie St (3,240m). • Cuballing St-Carlton St-Cuballing East Rd (420m). • Chungamunning Rd to unnamed road (along verge of Great Southern Hwy south of Cuballing) (1,600m). **Moderate clearing (6,675metres) ($33,375):** Treforts Rd to Hotham River (2,600m). End of heavy clearing (see below) to Chungamunning Rd (2,440m). Western end of existing un-named road reserve to Shire Boundary (1,635m). **Heavy clearing (460metres) ($4,600)**: Immediately south of Alton St, Cuballing (460m).	**108,955**
5	**FENCING – PRIVATE PROPERTY** • Allowance for boundary fencing repair work between Treforts Rd and Popanyinning (between trail and private property) (4,000m) ($60,000). • Allowance for new fencing (both sides) along road reserve connecting Great Southern Hwy and Corrie St, Cuballing (160m) ($8,000).	**68,000**

Table 11: Shire of Cuballing - The Green Route

Ref #	Works Item	$
6	**OTHER WORKS – PRIVATE PROPERTY** Allowance for landowner requests (e.g. additional fencing and vegetation screening).	4,000
7	Allowance for purchase and installation of additional signage -notably "No Trespassing" signs (18).	1,800
8	**WATERCOURSE CROSSINGS** Allowance for 2 x 10m bridges at level of northern bank on Hotham River.	120,000
9	Allowance for 1 x 6m bridge crossing of Candy's Creek (also needs 150m extra fill and 2 pipes on southern approach to creek).	39,000
10	**Allowance for culverts/pipes:** • 2 medium culverts in the 2.7km section immediately south of Popanyinning (section runs south from Popanyinning to (northern) existing crossing of railway) (associated with extra fill (Ref #3)). • 2 medium culverts in the 3.3km section south of (northern) existing crossing of railway to Dents Rd (associated with extra fill (Ref #3)). • 2 x pipe and fill (10m) between Chungamunning Rd and unnamed road on Great Southern Hwy verge.	60,000
11	Allowance for 120 metre boardwalk north of Popanyinning over unnamed creek.	186,300
12	Allowance for 10 metre boardwalk over South Hotham River south of Yornaning.	15,525 *(Floodway/ bypass – 9,000)*
12	Allowance for 100 metre extra fill and 2 pipes over Watsons Brook.	3,500
14	Allowance for armoured crossings (1 already in place at Hotham River South).	0
15	**CHICANES AND ACCESS CONTROL** Install chicane and management access gates.	0
20	**ROAD CROSSING SIGNAGE** **Road verges signage:** • Install 2 pedestrian/cyclist aware signs along Bunnulling Rd, Popanyinning (1 on either side). • Install 2 pedestrian/cyclist aware signs along unnamed existing road off Great Southern Hwy south of Cuballing (1 on either side).	2,000
21	**Install management signage at appropriate locations:** • South of Great Southern Highway crossing points (x3).	3,000

Table 11: Shire of Cuballing - The Green Route

Ref #	Works Item	$
22	**RAILWAY MAINTENANCE TRACK – SPECIAL PROVISIONS** Install No Trespassing signs at existing crossing point of railway (x7).	3,500
23	Install large Black and White chevron signs at existing crossing point of railway to ensure users do not veer onto railway maintenance track within railway reserve (x7).	7,000
24	Exclusion fencing - 100 metres at either side of road crossing (at Karping Rd) as a visual cue.	24,000
25	Exclusion fencing - 100metres at either side of road crossing (at un-named road south of Cuballing) as a visual cue.	24,000
28	**MISCELLANEOUS ITEMS** Allowance for surveying of property boundaries/fencing alignment as relevant ($3,000/km).	15,000
29	Allowance for weed spraying before/during construction.	3,000
30	Allowance for preparation and installation of interpretive signage (at locations to be determined by trail manager and local historians) (8 signs).	28,000
31	Allowance for Trail Directional Markers (incorporating emergency markers) to be placed along trail every 1km and at decision points (12) in Popanyinning, Yornaning, and Cuballing. Include 2 to point users to Yornaning Dam trail network (50 in total).	20,000
32	Allowance for installation of trailside furniture (e.g. seats) at locations to be determined by trail manager.	1,200
33	**Allowance for purchase and installation of additional signage as needed such as:** • Regulatory signage on trail (Shared Path; "No Trail Bikes"; "Authorised Users Only"); • Road name signs; • Trail name signs; • "No Trespassing" signs; • Local attractions sign; and • Miscellaneous signs (Keep Out etc.).	2,000
34	Allowance for traffic management (0 remote road crossings).	0
35	Allowance for cable locators at road crossings (0 remote road crossings).	0
36	**Allowance for boot/bike tyre cleaning stations:** • Either side of Hotham River Nature Reserve (to manage potential dieback) (x2).	8,000

Table 11: Shire of Cuballing - The Green Route

Ref #	Works Item	$
37	Allowance for offset revegetation.	**15,000**
	Sub Total	***2,267,805***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	**56,695**
	Contingency amount (15%).	**340,170**
	Project management (5%).	**113,390**
	TOTAL (NOT INCLUDING GST)	**2,778,060**

An un-named gravel road south of Cuballing makes for an excellent trail route.

7.6 Works Tables: Shire of Narrogin

(Refer to Plan 5 and Plan 9 in Appendix 4)

Table 12: Shire of Narrogin - The Orange Route

Ref #	Works Item	$
1	**Trailhead: Located at Narrogin Visitor Information Centre:** • Install trailhead sign (double-sided brown chevron) on Northam Cranbrook Road ($2,000). • Prepare and install trailhead map panel ($8,000). • Install 1 trail directional marker ($400). • Install bike parking rails ($3,000).	13,400
2	**On-road signage:** • Install 12 trail directional markers on the road network ($4,800) (some of these are single sided while some are double sided – cost is averaged). • Install 4 "cyclists on road" signs ($2,000).	6,800
	Allowance for preparation and installation of interpretive signage (at locations such as old town sites and other points of interest to be determined by trail manager and local historians) (2 signs).	
	Sub Total	***27,200***
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	680
	Contingency amount (15%).	4,080
	Project management (5%).	1,360
	TOTAL (NOT INCLUDING GST)	**33,320**

Table 13: Shire of Narrogin - The Green Route

Ref #	Works Item	$
1	**TRAIL CONSTRUCTION** Construct new trail between Shire boundary and Curtis Rd railway crossing (665m). Use maintenance track on road reserve, Hillside Rd and town road and path network between Curtis Rd railway crossing and Narrogin trailhead. Construction includes forming of a slightly crowned gravel surface to create a trail on minimum width of 1.2m – 1.5m.	29,925
2	Extra fill to cater for "wet" spots in trail route and create elevated trail (500 metres). • 5 sections between Curtis Rd and Golf Course Parade.	7,500
3	**CLEARING** **No clearing (8,635 metres):** • Curtis Rd railway crossing to Narrogin Trailhead (8,635 metres). **Light clearing (665metres) ($1,995):** • Shire boundary to Curtis Rd railway crossing (665m).	1,995
5	**FENCING – PRIVATE PROPERTY**	0
6	**OTHER WORKS – PRIVATE PROPERTY** Allowance for landowner requests (e.g. additional fencing and vegetation screening).	1,000
7	Allowance for purchase and installation of additional signage - notably "No Trespassing" signs (4).	400
	WATERCOURSE CROSSINGS Allowances for bridges.	0
	Allowances for culverts.	0
	Allowances for boardwalks.	0
	Allowances for armoured crossings.	0
15	**CHICANES AND ACCESS CONTROL** Install chicane and management access gates.	0
16	**ROAD CROSSING SIGNAGE** **Road crossing:** All road crossings within urban area. No signs needed.	0
20	**Road verges signage:** Install 4 pedestrian/cyclist aware signs along Hillside Road (2 on either side).	2,000

Table 13: Shire of Narrogin - The Green Route

Ref #	Works Item	$
21	**Install management signage at appropriate locations:** • North of Gold Course Parade (going north) (x1)).	1,000
22	**RAILWAY MAINTENANCE TRACK – SPECIAL PROVISIONS** Install No Trespassing signs at existing crossing point of railway (x4).	2,000
23	Install large Black and White chevron signs at existing crossing point of railway to ensure users do not veer onto railway maintenance track within railway reserve (x4).	4,000
24	Exclusion fencing - 100 metres at either side of road crossing (at Farrelly Rd) as a visual cue.	24,000
28	**MISCELLANEOUS ITEMS** Allowance for surveying of property boundaries/fencing alignment as relevant ($3,000/km) – along Hillside Road to determine precise location of railway/road reserve boundary.	18,000
29	Allowance for weed spraying before/during construction.	3,000
30	Allowance for preparation and installation of interpretive signage (at locations to be determined by trail manager and local historians) (3 signs).	10,500
31	Allowance for Trail Directional Markers (incorporating emergency markers). 2 between Shire boundary and Farrelly Rd and 4 walk shields added to proposed Orange route sign posts.	1,600
32	Allowance for installation of trailside furniture (e.g. seats) at locations to be determined by trail manager.	0
33	**Allowance for purchase and installation of additional signage as needed such as:** Regulatory signage on trail (Shared Path; "No Trail Bikes"; "Authorised Users Only"); • Road name signs; • Trail name signs; • "No Trespassing" signs; • Local attractions sign; and • Miscellaneous signs (Keep Out etc.).	1,000
34	Allowance for traffic management (2 remote road crossings).	0
35	Allowance for cable locators at road crossings (2 remote road crossings).	0
36	Allowance for boot/bike tyre cleaning stations.	0

Table 13: Shire of Narrogin - The Green Route

Ref #	Works Item	$
37	Allowance for offset revegetation.	3,000
	Sub Total	*110,920*
	Approvals, permits, applications, designs, specifications, assessments (2.5%).	2,775
	Contingency amount (15%).	16,640
	Project management (5%).	5,545
	TOTAL (NOT INCLUDING GST)	**135,880**

7.7 Cost Estimates – Summary by Council

Table 14: Total Costs - Orange Route

Shire	Cost
Shire of Beverley	$34,180
Shire of Brookton	$53,530
Shire of Pingelly	$55,615
Shire of Cuballing	$76,010
Shire of Narrogin	$33,320
TOTAL (EXCL. GST)	$252,655

Table 15: Total Costs - Green Route

Shire	Cost
Shire of Beverley (excl. Apex Park-Caudle Road, Beverley)	$1,165,340
Shire of Brookton	$3,013,025
Shire of Pingelly	$1,772,910
Shire of Cuballing	$2,778,060
Shire of Narrogin	$135,880
TOTAL (EXCL. GST)	$8,865,215

7.8 Cost Estimates – Town to Town

Table 16: Total Costs by town connections - Orange Route

Section	Cost
Beverley - Brookton	$65,050
Brookton - Pingelly	$62,590
Pingelly - Cuballing	$65,785
Cuballing - Narrogin	$59,230
TOTAL (EXCL. GST)	$252,655

Table 17: Total Costs by town connections - Green Route

Section	Cost
Beverley - Brookton (Excl. Apex Park-Caudle Road, Beverley)	$3,223,005
Brookton - Pingelly	$1,990,310
Pingelly - Cuballing	$3,048,560
Cuballing - Narrogin	$603,340
TOTAL (EXCL. GST)	$8,865,215

SECTION 8: DESIGN NOTES

8.1 Introduction

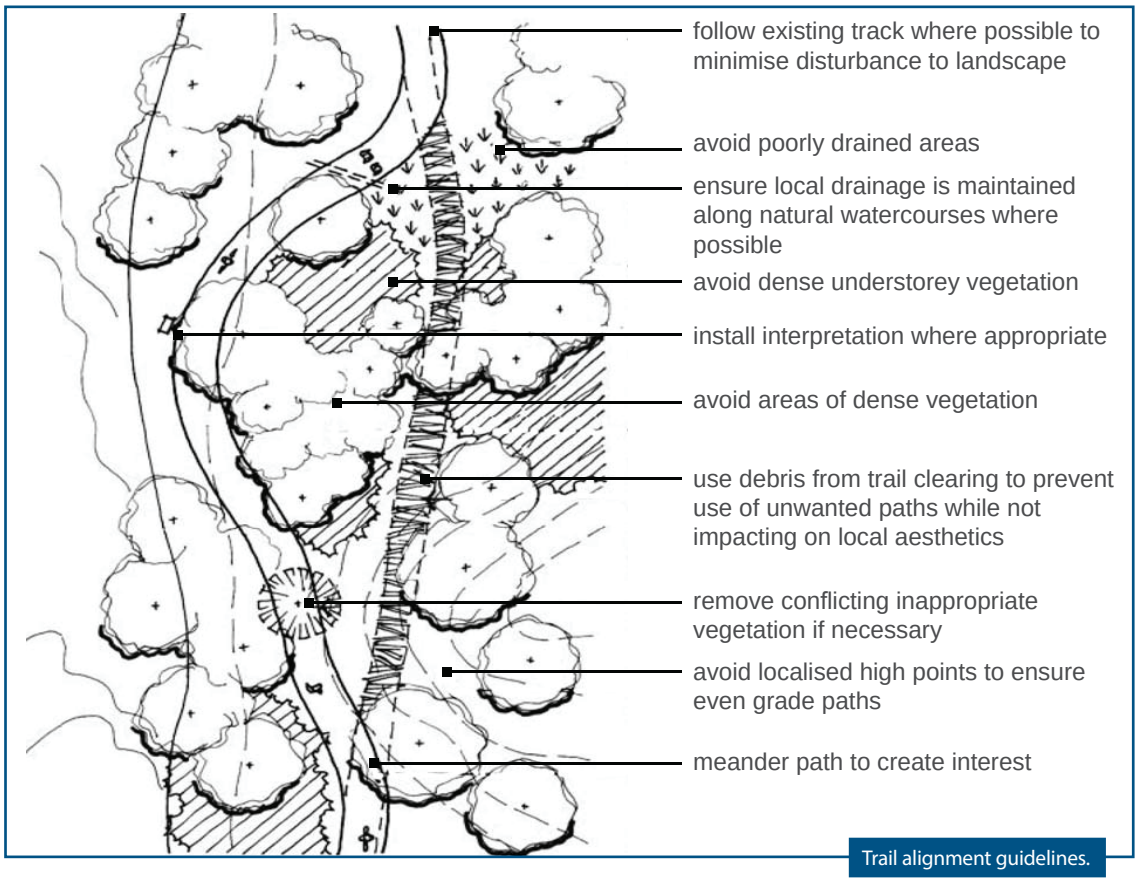
This section of the report addresses a series of matters relating to trail design and development of the Beverley Narrogin Transport Trail – to achieve a trail that is constructed with minimal disturbance to the natural environment, is sustainable and that requires minimal maintenance.

These design notes apply primarily to the Green route. Design considerations for the Orange route are covered in the reporting about signage (see 8.7).

The decision to exclude horses was taken by the Project Working Group at its July meeting. This decision has been carried through to this project and no design provisions are included which permit horse riding.

8.2 Trail Alignment Considerations

It is recommended that any new trail generally 'weave' across the landscape. This design criteria acknowledges the diversity of user demands and makes the trip enjoyable for all groups of users. The trail alignment guideline below indicates the design approach that should be used (and covers a range of other parameters to be considered) when constructing a new trail. Between Caudle Road and Kokeby East Road in the Shire of Beverley, there is a wide reserve in which to construct a trail (on Vacant Crown Land). Further south, the use of narrow road reserves limits the capacity to weave the trail.



Trail alignment guidelines.

8.3 Trail Clearing

The initial steps once the trail route is finalised will be to undertake necessary clearing. The removal of vegetation will include the clearing and disposal of all foliage, trunks, stumps and roots that occurs on the trail or within the overhead envelope.

Trail construction may require greater clearance during construction phase than the ultimate clearing envelope. Trail clearing should be carried out to have minimal impact on the area surrounding the trail.

Care should be taken to avoid removing any large trees or significant vegetation. Trees with a Diameter Breast Height (DBH) greater than 200mm should not be removed and should be protected from impact (timber girdle or jute master matting) in accordance with AS 4900 – 2009 (accepted techniques of tree protection). Material from clearing and pruning should be distributed in bushland adjacent to clearing, in areas devoid of vegetation or possibly adjacent to the trail to define the route. When doing this, the trail builder needs to be aware of the aesthetic environment into which cut material is being dumped to ensure cut vegetation does not become an unattractive part of the landscape. Disturbed areas should match the surrounding landscape when construction is finished.

Trail construction will be carried out while avoiding erosion, contamination, and silting. Trail construction should not affect adjacent land use and creek and stream systems. Any disturbance of the ground profile by stump removal shall be backfilled and compacted and left slightly above ground level to avoid future slumping. Effective control of weeds is necessary during clearing, construction and maintenance phases.

8.4 Trail Width and Height

Trail width presents a number of challenges. In Project Working Group meetings, a desire has been expressed that the Beverley Narrogin Transport Trail be similar to the Munda Biddi Trail and the Bibbulmun Track in many respects – one of which seems to be trail width. This would necessitate a single track-type trail (though neither the Munda Biddi or the Bibbulmun is entirely single track over their lengths. This is an understandable approach from a cost perspective. However, countermanding this approach is the need to ensure any trail will attract funding from the State Government and comply with any funding requirements.

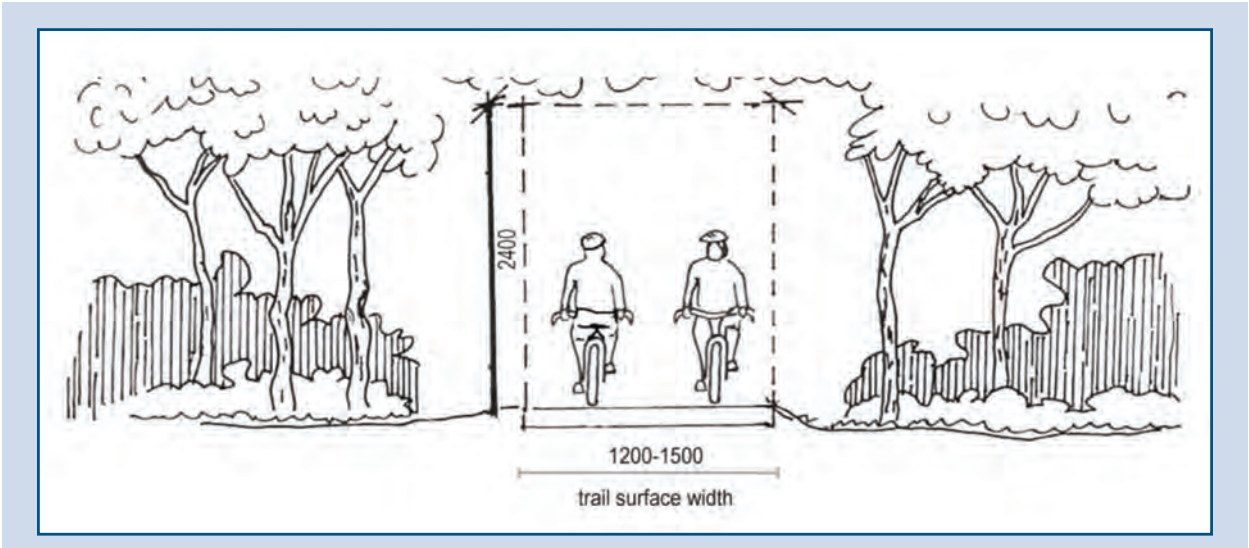
Minimal clearing and directional signage along a section of the Munda Biddi Trail.

Whilst there are currently no funding programs that specify what a transport trail "looks like", the WA Department of Transport, in its various Cycling Strategies (such as the *Avon Central Coast 2050 Cycling Strategy*), defines Transport Trails as "long-distance, predominantly unsealed trails which are typically used to connect towns and notes that, in some cases, transport trails cater for other types of users including bushwalkers, trail runners and horse-riders. On such trails, it is essential that paths are managed appropriately to ensure the safety and satisfaction of all user groups. The strategies go on to state that in terms of their built form, transport trails should ideally be wide enough to allow two people to ride comfortably side-by-side.

There is also the need to consider the target markets for the trail. The Project Working Group has been quite clear that a (or perhaps the) key market for the Green route is the 'cruiser market'. This market – as defined in the *Pingelly Mountain Bike and Cycling Strategy 2022-2026* - consists of families on holidays who incorporate cycling as part of that holiday. This market is typically made up of families with school-age children with a casual interest in cycling who tend to take shorter holidays (less than a week) in familiar places. Three-quarters are 'cyclists while on holidays'. For this group, cycling experiences should be easy, unchallenging, casual, low-risk, inclusive, covering short distances and involve sightseeing. On a traditional mountain bike trail, singletrack trails tend to wind around obstacles such as trees, large rocks, and vegetation. The narrow and frequently rough nature of singletrack demands constant focus and a slow to moderate speed. Tread is almost always a natural surface. On trails where bushwalkers share with mountain bikes, a trail width of 1500mm is appropriate, allowing two mountain bikes to pass comfortably. To this end, a wider trail (1200mm – 1500mm) will be more appropriate to allow side by side riding and walking and to facilitate passing in both directions. This has been costed in Section 7.

All overhanging vegetation - and that which intrudes from the sides into this 'envelope' - should be cut back on a regular basis. Care should be taken that sharp and dangerous 'points' are not left in this pruning process. The diagram below shows the clearing and width envelopes for an appropriate bike trail – these envelopes also suit for shared use.

Ongoing maintenance will be required, on an 'as and when required' basis, to prune the vegetation alongside the trail to keep the trail corridor clear of overhanging vegetation. The regularity of the clearing of side growth vegetation will depend on numerous factors, particularly the type of vegetation growing alongside the trail over its length.



8.4 Trail Surfacing

Again, noting the Munda Biddi Trail and Bibbulmun Track models, there was consideration to constructing the Beverley Narrogin Transport Trail as a natural on-ground trail. On a traditional mountain bike trail, singletrack tread is almost always a natural surface. However, consideration of the potential markets suggests an unsealed compacted trail surface at grade is the most appropriate surface. Such a surface may also be more in line with what the Transport Department is seeking from its transport trails (though this is speculation in the absence of funding guidelines). The feeling is that the better the quality of trail, the better the experience for most potential trail users. The better the quality, the better the chance of attracting more users and consequently the bigger the financial returns to the communities along the way. This trail will not have the iconic appeal of the Munda Biddi Trail or the Bibbulmun Track (this is only likely if it becomes part of a much bigger loop – an idea that has been championed by the Shire of Pingelly's CEO). It therefore needs to stand out in other ways – quality of surface may be one of the options.

For a walking trail, it is suggested that it is the most appropriate finish wherever unsealed and generally easily accessible trails are required for visitors of varying levels of fitness and little to no previous walking experience. There are three options for trail material (as shown below):

OPTION 1

Class 2.5 Road base maintenance gravel.

OPTION 2

20mm - 25mm unspecified roadbase with a binder product (Dustex and Ecotrax or similar approved product) runnelled through (on flat slopes only). Subgrade to be 50mm-75mm sized aggregate or 75mm-150mm sized aggregate for wet areas.

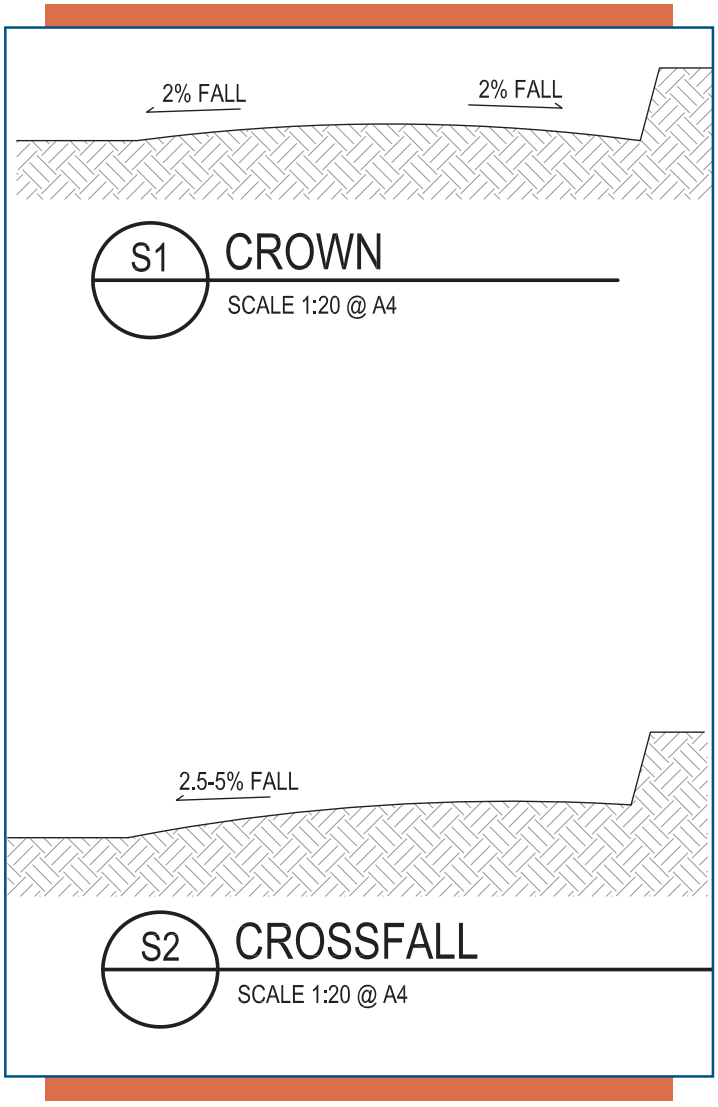
OPTION 3

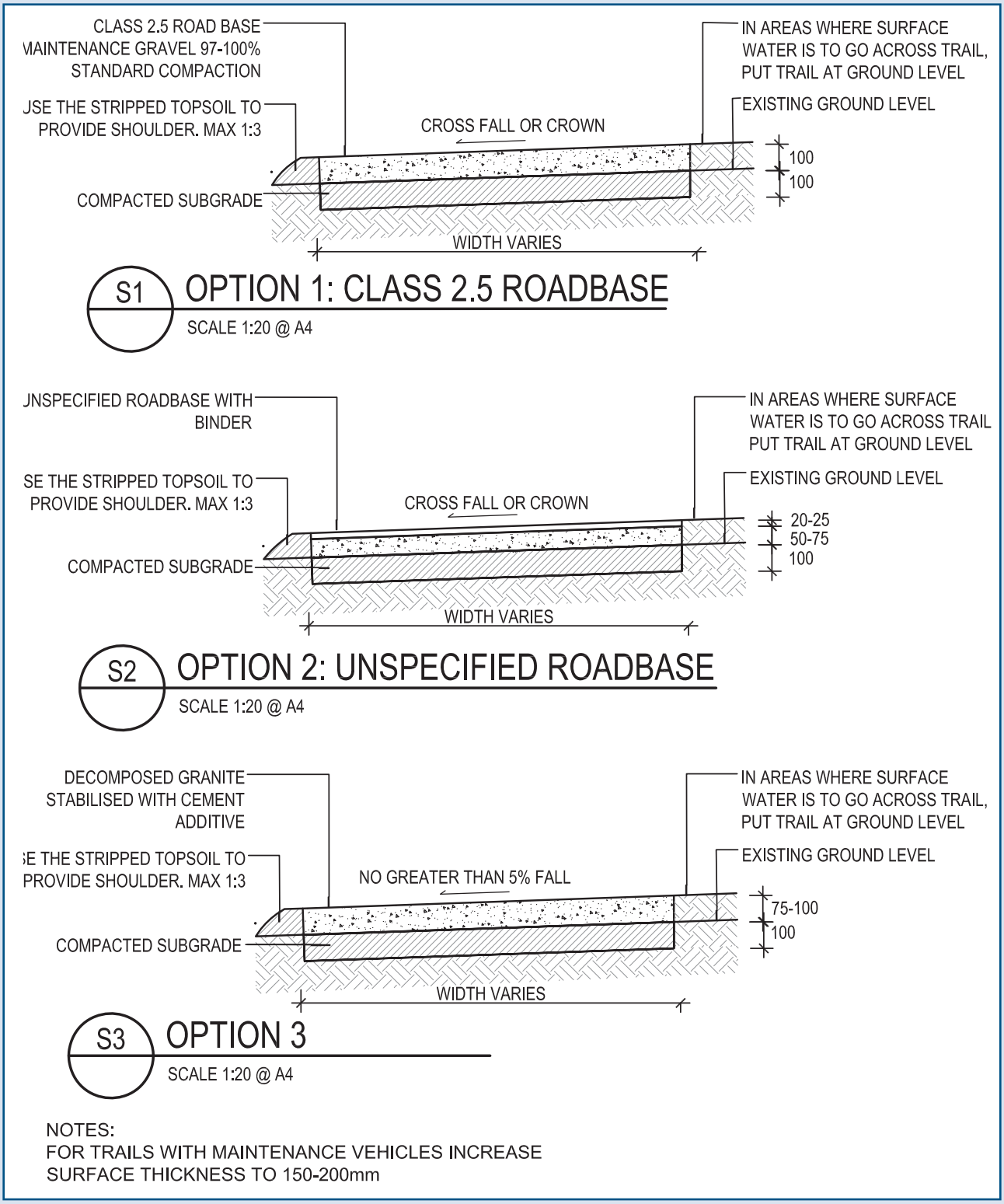
Decomposed granite stabilised with cement additive (dry cement, mix to be 6:1 granite to cement). Don't use this option on trails greater than 5% or in high use wet areas.

Other options may be stabilised:

- 100mm road base with turf over the top as a surface.
- Structural soil, mix of material (crushed rock with no fines, road base) with turf over top.

In considering trail surface construction, there will be a need to be attentive to water flows across the trail (the "bogginess" of some sections of the railway maintenance track between Beverley and Narrogin indicate the importance of this design factor).





Cross falls and crowns allow the water to run directly across the trail. It should be used where surface run-off from the slope above the trail is not excessive, and soils are resistant to erosion. This drainage method is suitable for use on trails of minimum to moderate grade.

The cross section of the tread can be shaped to direct surface water off the trail. The tread can be crowned (i.e. rising to the middle) or built with cross fall (cross-slope).

If using a crown, the crown should be 2%. Crossfall should be 2.5%-5%.

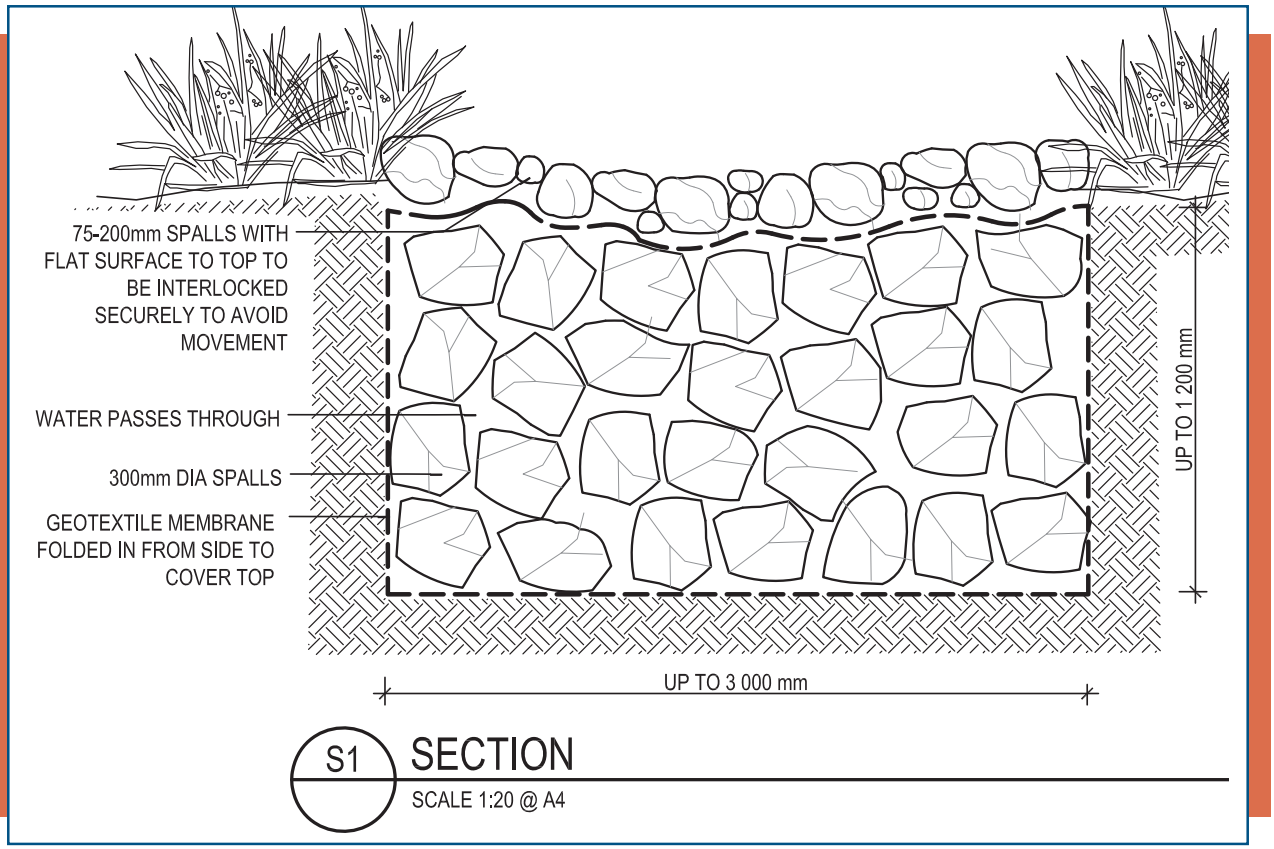
8.5 Water Crossings

There are several sites along the proposed Beverley Narrogin Transport Trail where new water crossings will be required. These primarily consist of "armoured" crossings, boardwalks (or floodways) and bridges.

8.5.1 Armoured Crossings/Causeways

A constructed water crossing usually of rock or similar material that is durable to permanent or semi-permanent inundation. A causeway could be constructed at stream level but it is generally raised to allow minor or usual flows to pass through. In heavy rainfall events, water will flow over the causeway. A causeway is a simple and inexpensive means of allowing trail users to pass through water while minimising sedimentation. These should only be used in streams with slow water velocities and a depth of no more than 1 metre. It may be necessary to underlay larger stones with gravel, cobble or geotextile to prevent excessive settling (as shown in the drawing).

The constructed crossing should have the same cross section and be at the same slope as the adjacent channel (mimic the stream).



8.5.2 Boardwalks

Boardwalks are used in difficult to access areas that are predominantly wet or subject to seasonal inundation – the case along many sections of the Beverley Narrogin Transport Trail. They can also be used in environmentally sensitive areas where an access structure of flexible design and alignment is required to avoid ecologically critical areas or minimise vegetation clearance.

Boardwalks can be built to a range of standards. The application will determine the size, strength and quality of the structures needed. Boardwalk width should be similar to the trail width though cost will be

an important consideration in determining final width. When using a pre-cast boardwalk, the width may be determined by the manufacturer's standard lengths (e.g. 1.2m, 2m, 3m for pre-cast concrete boardwalks).

Kick rails are required on all boardwalks. Where fall to the ground exceeds 1 metre, balustrades are required.

Straight long sections should be avoided, as should acute changes in direction. Curved sections of boardwalk can be used to minimise visual impact and vegetation clearance.

Slip prevention is important when installing boardwalks. There are a number of options for reducing slip:

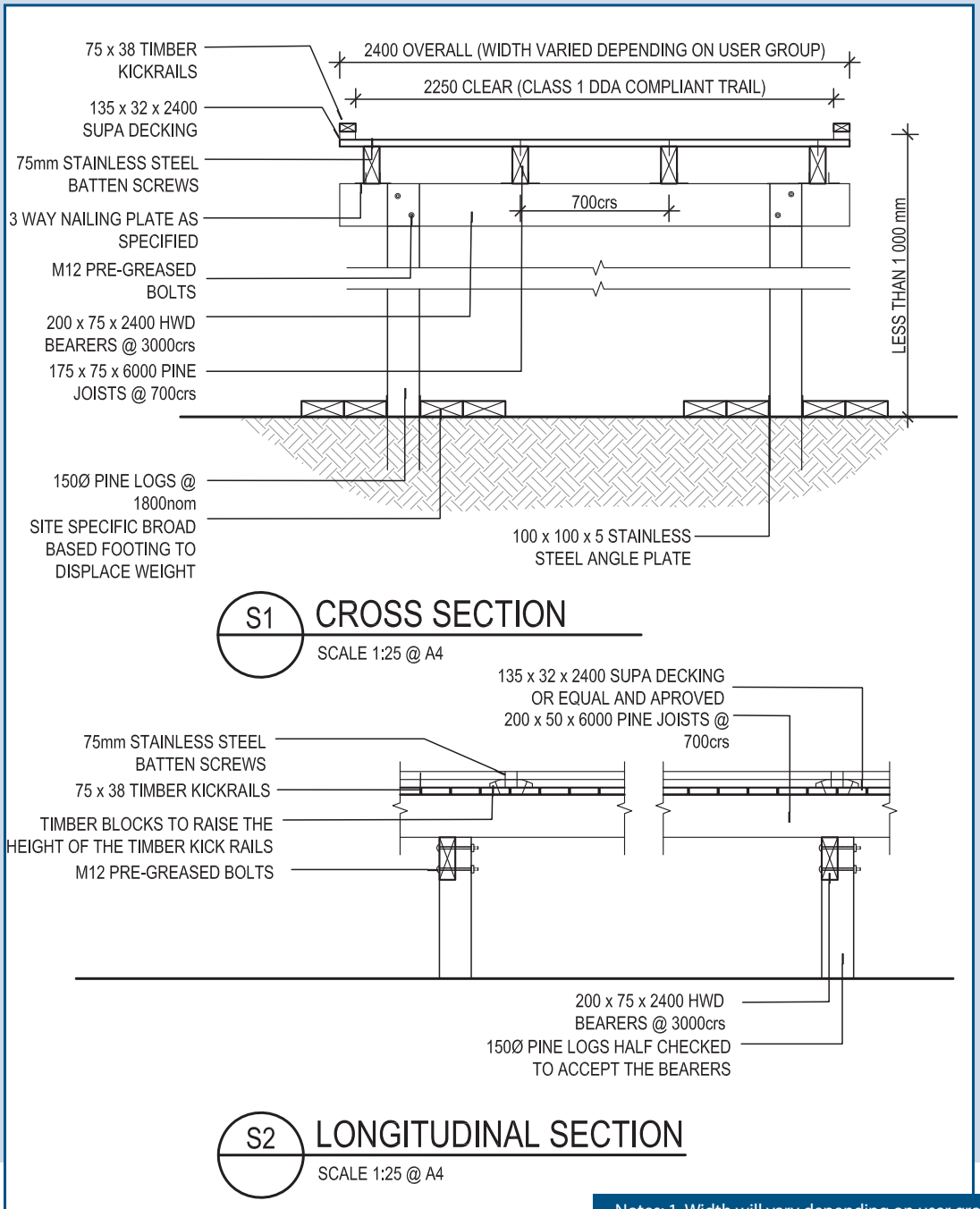
- A decking surface other than timber e.g. pre-cast concrete, composite fibre technology (CFT).
- Regular gurney spraying as required for the site conditions.
- A non-slip surface on boardwalks NOT used by horses.

Boardwalks can be constructed from a number of materials:

- Timber should be Class 1 or Class 2 treated hardwood. Rough sawn timber should be used for the structural elements of the boardwalk. Timber should be rated as F14 (minimum grade) though F17 is the preferred option.
- Structurally rated pine treated strength denoted by engineering design.
- Pre-cast modular concrete (such as Rocla PermaTrak) is available in natural or paperback finishes (broom finished).
- Composite Fibre Technology (CFT) is being used in a range of environments and with varying loads on bridges and boardwalks across Australia and the USA.
- Fibreglass Reinforced Polyester (FRP) Mini-Mesh Grating is rapidly increasing in popularity as a walkway surface in sensitive reserves though UV protection is needed.
- Recycled Plastic (such as Replas Enduroplank) is available in both a timber and grooved finish. Appropriate for square runs as decking but not suitable for curved boardwalks or structural framework. Can be used in conjunction with CFT.
- Steel mesh grating provides a number of advantages – it provides viewing opportunities to the underside of the boardwalk; it does not shade out plants and it is a non-slip surface. These advantages also apply to the FRP system.

In determining material, the trail designer will consider costs, aesthetics, life expectancy, weight and the conditions under which the boardwalk will be built.

Proper evaluation of soils is critical to the economy of the system and the performance of the boardwalk. A detailed soils evaluation of the site enables more informed design decisions as well as reducing the risk for the construction contractor. Flooding assessment should also be undertaken to aid in determining siting.



Notes: 1. Width will vary depending on user group.

8.5.3 Bridges

Bridges are applicable for crossings where a robust and rigid structure is needed to provide for a wide range of visitor types including disabled visitors and for narrow crossings over small, contained gullies or stream crossings where stable abutments can be established, and where there is a chance of inundation by fast flowing floodwater.

The design of a bridge is subject to a number of variables that need to be considered. These include:

- Loading (determined by types of users). It is not envisaged that any bridges will need to be built for vehicles as all locations along the trail are easily accessible – there are very few isolated sections;

- span;
- flood levels and velocity;
- accessibility for construction;
- soil and bank stability;
- handrails/balustrades – fall heights, user groups, flood impacts; and
- fire risk.

A clear statement of the bridge's purpose i.e. what load will it be carrying – people, horses, vehicles – will determine the bridge loading and design. Bridges would typically be constructed at a level at or above the 2-year ARI flood level. The design flood conditions should balance the outcomes of user experience, safety, hydraulic impacts, and maintenance requirements, among other considerations.

The location of the structure would need to consider a range of factors including topography, waterway bathymetry, geology, vegetation, and adjacent land uses which is something to consider during the design development phase of the project. Any ramps down from the surrounding land to the low level bridge or structure should aim to achieve a grade of 5% with a maximum desirable grade of 10% though it is desirable that the trail shall meet the bridge flush.

Bridge construction shall not result in any damage or increased risk of damage to streambank stability.

Where fall to the ground exceeds 1 metre, balustrades are required. There are designated standards for handrails for pedestrians and cyclists (1.0m – 1.1m high for walkers and 1.4m for cyclists with a number of detailed specifications regarding design).

Bridge width should be similar to the trail width though cost will be an important consideration in determining final width. When using a pre-fabricated bridge, the width may be determined by the manufacturer's standard lengths.

8.6 Road Crossings

As noted in Section 5, the road reserves that the trail will use paralleling much of the Great Southern Highway are discontinuous and not always accessible, creating the need to cross the Great Southern Highway a number of times – an unavoidable feature of the Green route. Road crossings always present challenges. The desired approach is to minimise crossings and allow crossings directly perpendicular to the flow of traffic.

Road / trail crossings always present a special hazard which must be addressed carefully. A crossing should have enough space cleared and levelled on both sides of the road to allow cyclists travelling together to gather in a group and cross en masse. One-at-a-time crossing greatly increases the overall time in the roadway and therefore increases the likelihood of encountering a vehicle. The crossing should ideally be at a straight, level area allowing both trail user and vehicle driver good visibility and the driver ample stopping distance (if possible). The trail should be clearly marked on each side of the road for easy recognition and the crossing be designed to move the trail user away from the road reserve as quickly as possible. For safe travel pedestrians and cyclists must be able to see other approaching trail users as well as approaching vehicles on roads. The available sight distance needs to be such that trail users can stop or take evasive action if necessary, in order to avoid another cyclist, pedestrian, an obstacle in their path or cars at an intersection.

All trail crossings should be perpendicular to the road. All crossings will be at the road level as is common with the overwhelming majority of road crossings on trails in Australia.

The *Guide to Road Design Part 6A: Paths for Walking and Cycling* provides guidance on the design of paths for safe and efficient walking and cycling, both within the road corridor and outside the road corridor. Detailed guidance is provided on path location, alignment, width, clearances, operating speeds, horizontal curvature, gradients, crossfall, drainage, road crossing treatments and sight distance requirements.

The location and design of paths is influenced by a range of matters that need to be considered and facilities that need to be accommodated within roadsides. Other Austroads guides are also available, in particular the *Guide to Road Design Part 6: Roadside Design, Safety and Barriers and Part 6B: Roadside Environment*.

Generally, the road crossing treatment required includes:

- Installation of signage on the trail (both sides of the road crossing) advising (or warning) of the upcoming crossing of the road. The recommended treatment is the installation of (either or both) "Give Way" (or "Stop" signs if it is a major road) and "Road Ahead" signs on both sides of the crossing.
- "Trail Crossing Warning Signage" on the road (both sides of the trail crossing) alerting road users of the upcoming trail crossing;
- Installation of pipe culverts (where required); and
- Miscellaneous signage (including Trail name and logo; distance signs; Emergency Marker signs; road name signs; "Unauthorised Vehicles Prohibited" signs; "Trail Bikes Prohibited" signs, etc.).

Signs required to create safe road crossing are outlined in Section 8.7. Across Australia, trails cross major roads with varying speed limits (between 50km/hr in urban areas and 110km/hr in rural areas) with relatively simple crossing systems. One simple way to address the crossings is to include on the "Trail Crossing" ahead sign is a large trail name sign below the yellow diamond. This approach has been successfully used on a number of rail trails in Victoria. This has the added advantage of advertising the trail to passers-by.

Crossing point on Great Southern Highway, south of Kokeby.

8.7 Signage

Several kinds of signage are required on the Beverley Narrogin Transport Trail, including distance, directional, warning, promotional, etiquette and interpretive signs. Each should be standardised along the trail and, where appropriate, concordant with relevant local or Australian 'standards or practices. The chosen colours of all signs should be uniform throughout the trail.

A design option for trailhead map panels and trail directional markers is included in the design drawings below. The trail passes through five Local Government who may have different signage designs. It is important to emphasise that - should the trail be constructed – signage along the trail should be consistent regardless of which Council it is in. The trail user is "tenure blind" and will only be confused if differing signage design is adopted in the five Council areas for the Beverley Narrogin Transport Trail.

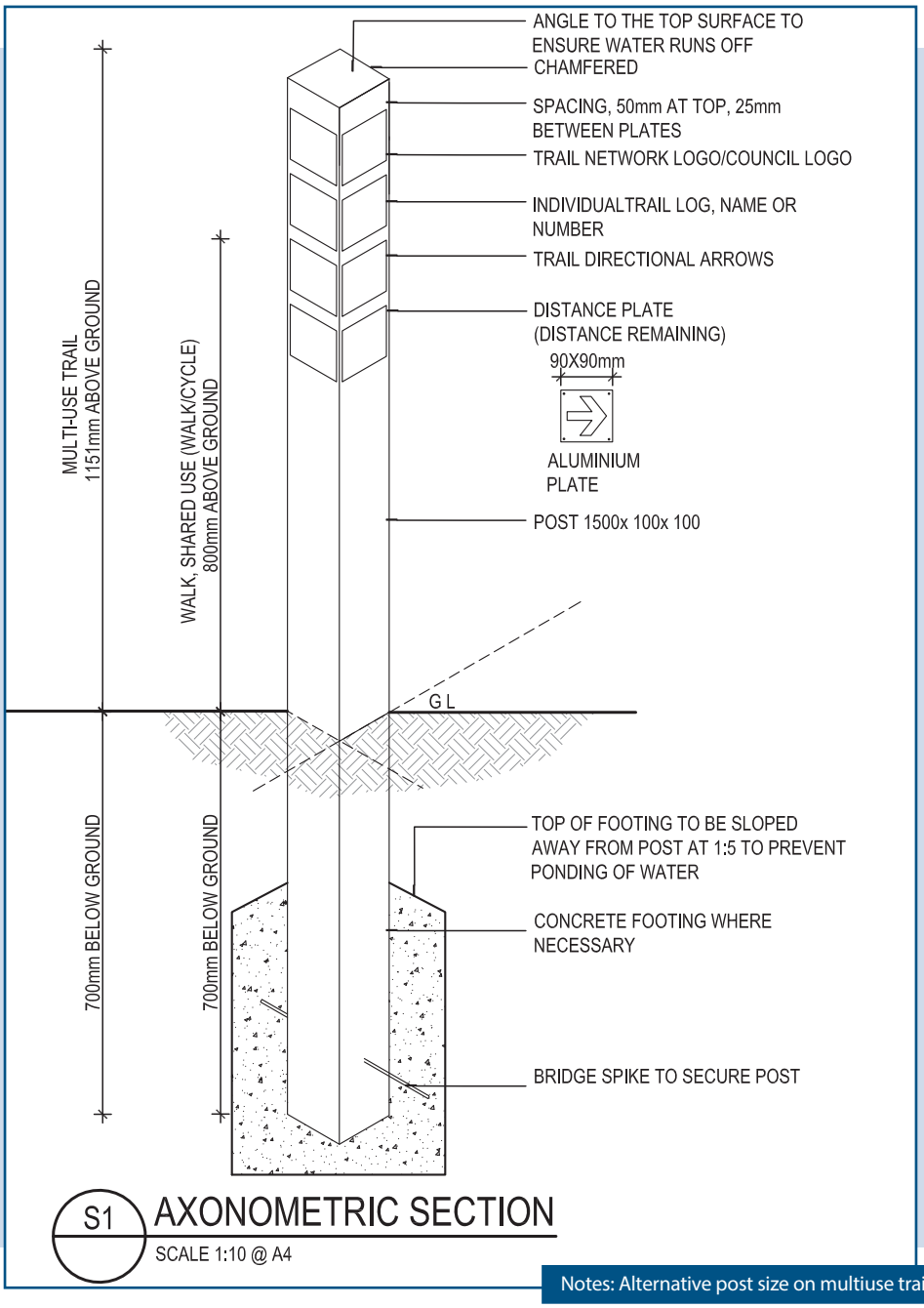
Road crossings often present a challenge. Crossing the Great Southern Highway at Watsons Rd, north of Cuballing, presents a particular challenge (top left). The suggested solution is to include a large trail name sign at the bottom of the standard trail crossing sign (as shown above on three Victorian rail trails – top right, bottom left, bottom right).

8.7.1 Distance Signage

Recognising that users will join a trail at any number of points, installing distance and direction signs at road crossings will not only benefit those joining the trail at that location, but provide additional information for users already on the trail.

Trail distance signage will need to be placed at regular intervals along the route. The obvious location is at each road crossing (and at the trailhead) where trail users are likely to join the trail. It is proposed to implement standard signage addressing distance requirements every 1km. A typical directional marker is shown below – note that is does not include the emergency signage which can be included on directional markers as discussed below.

The recommended distance sign plates (as with all other signs) should be affixed with at least 4 stainless security screws to prevent them being removed. In addition, the distance signs (as well as the various other sign panels used on the posts) should be affixed with silastic or 'liquid nail' products.



Notes: Alternative post size on multiuse trails 1800x200x100

8.7.2 Warning Signage

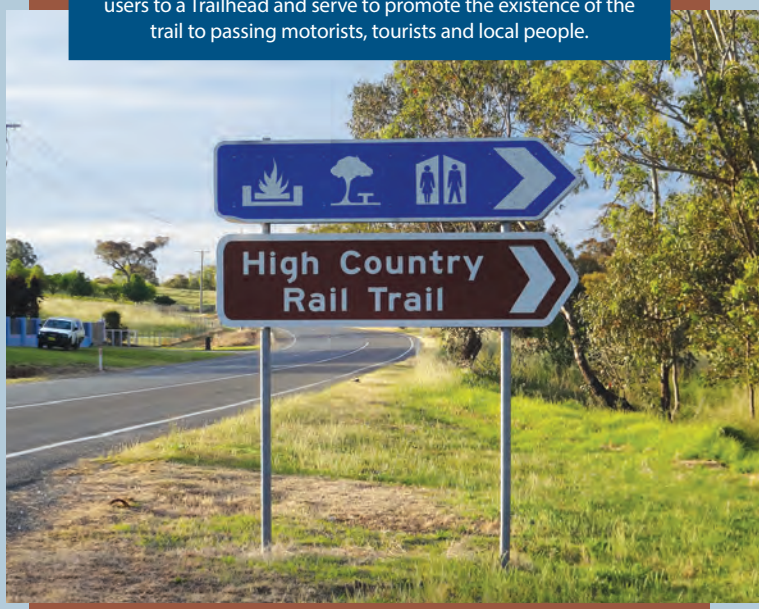
There are a number of locations along the proposed Beverley Narrogin Transport Trail that demand warning signage, primarily at the many road crossings facing trail users. In the case of road crossings, (either or both) a "Road Ahead" yellow diamond warning sign (W6-8A) some 50-70 metres before a crossing is recommended (on a stand-alone post), with a triangular "Give Way" sign (R1-2) on the verge at the road crossing (on a stand-alone post) – or a "Stop" sign where appropriate (R1-1 – 300 x 300). Bicycle/pedestrian (i.e. Trail Crossing) warning signs (W6-9) with arrow (W8-23) (or W6-V105) are recommended for installation on roads, either side of a trail crossing, or use of "Crossing Ahead" signs as indicated above.

The proposed trail has multiple road crossings along the route, and some of these provide both challenges and opportunities for trail development. The challenges come in ensuring that these crossings are safe for future trail users, while the opportunities surround the passing road users who can be alerted to the trail's presence. Such 'opportunistic' promotion can only be good for the future of the trail in raising awareness and increasing user numbers.

8.7.3 Promotional Signage

Promotional signage has been used to great effect on other trails throughout Australia, increasing general awareness of the trail among the broader community. For the proposed Beverley Narrogin Transport Trail, the recommended 'promotional' sign should be incorporated into the on-road 'Crossing Ahead' warning signs. They are an excellent means of communicating the message to road users that they need to be alert for the presence of trail users.

It is recommended that a number of "Trailhead" signs also be erected to give prominence to the trail when constructed. The installation of these signs will enable local people and visitors to become more aware of the trail.



Signs pointing in to the "Trailhead", as used on the High Country Rail Trail in Victoria, are an excellent means of directing trail users to a Trailhead and serve to promote the existence of the trail to passing motorists, tourists and local people.

8.7.4 Emergency Management Signage

Distance signage provides good reference points for emergency services. It gives anyone who needs emergency assistance an easy reference point. On other projects, consultation with ambulance officers in particular highlighted this need. When people panic (as they often do in an emergency situation), normal cognitive processes do not work. On-trail signage should be as helpful as possible and minimise likely stress. Consequently, distance signs should be installed at regular intervals, with distances to the next trailhead or major town or road crossing (on either side of the post). This enables people to quickly identify where they are by travelling a very short distance from the emergency situation. All road crossings should also have a GPS reference/identifier on the chicane (or on a separate post) for use in emergencies, again as a location aid for those in stress. There is also a need to include the emergency telephone number at all trailheads (on the trailhead map panel) and clearly Signs pointing in to the "Trailhead", as used on the High Country Rail Trail in Victoria, are an excellent means of directing trail users to a Trailhead and serve to promote the existence of the trail to passing motorists, tourists and local people.

Identify that one number will contact all three emergency services (police, ambulance, fire). While the emergency number from a landline is 000, the emergency number that works best from a mobile phone is

112. Information on what to do in an emergency, the location of public phones (there may be none on the trail itself), and the capacity for a flip-down sign indicating trail closure (due primarily to fire, flooding or maintenance work) should also be included at each trailhead.

In summary, the emergency signage that should be erected on a trail consists of:

- Distance signs at regular intervals showing distances to next trailhead or town or road crossing (double-sided). It is recommended that these include emergency marker signs (with a series of unique codes or identifiers);
- GPS identifiers at all road crossings (attached to the signposts or gating systems); and
- Trailhead signage specifying what to do in an emergency, the numbers to call, the location of public phone, and the capacity for a flip-down sign indicating trail closure (due primarily to fire, flooding or maintenance work).

8.7.5 Permitted User Signage

Signs (in the form of pictograms) indicating user groups that are permitted (or not permitted) on the Beverley Narrogin Transport Trail should be installed at every road crossing and entry point. These small signs can easily be installed on the totem posts near to the proposed trail user access gates (chicanes and bollards) or even on the gates/chicanes themselves.

Pictogram signage could include "No Motor Vehicles", "No Motor Bikes", "No Smoking", "No Alcohol" and "Dogs on Lead". The installation of "No Motor Vehicles" and "No Motor Bikes" are recommended at the outset, and the trail manager will ultimately determine what other signage may be required.

Above left: An Emergency Marker sign on the Lilydale Warburton Rail Trail in Victoria.
Above right: An Emergency Marker on the Kilkivan Kingaroy Rail Trail in Queensland.

8.7.6 Interpretive Signage

On-trail interpretation is becoming more and more of a feature of trails built in recent times. When well done, it can add significantly to the depth of the user's experience. It can also generate a sizeable cost and can be subject to ongoing vandalism in urban and rural areas.

People will move along this trail at a leisurely pace. This slower rate of travel, a more relaxed frame of mind and openness to new experiences provide ideal circumstances to educate trail users on all aspects of the country through which they pass. There are many stories that can be told along trails. The provision of interpretive material will greatly enrich the experience of visitors to the trail.

Effective interpretive material gives a specific "flavour" of the events, landforms, wildlife, and vegetation relevant to a specific site. The intention is for the traveller to develop a deeper understanding of the multitude of stories contained in a region. Conversely, the themes can be designed to spark interest, encouraging people to explore any story that interests them. It may also encourage them to extend their stay in the region to further pursue an interesting story or theme.

Interpretive signage does not need to be in place from the trail opening (though this would be a commendable outcome) but at least some information should be embodied in the trail brochure. Interpretation should be an integral part of any trail's development process.

The works tables (Section 7) make allowance for the placement of a number of panels along the trail with locations to be determined after local consultation.

8.7.7 Regulatory and Management Signage

Regulatory signage advises users of legal requirements and regulations associated with the use of a trail. Warning signs play an important role in risk and safety management of trails. They inform users of dangers, safety issues and other relevant information. Information on Regulatory (and management) signs should be basic, visible and quickly understood while meeting enforcement requirements.

Prohibition is communicated with red slashes through pictograms. Prohibition signs are to have a white background, black text and a graphic red prohibition symbol. Use positive messages to influence user behaviour. Pictograms should be used wherever possible instead of text to show both user groups and activities permitted (or not permitted).

Warning signs offer some protection to the land manager who is required to warn users of dangers, prohibitions and other safety information. Warning signs provide an economic alternative to staffing areas where there is a risk. Warning signs need to include four key elements:

- A danger/warning heading;
- a statement about the exact nature of the risk;
- the consequence of the risk; and
- how to avoid the risk.

Warning signs should be used where risks to life may occur, but not in situations where risk is normally anticipated and accepted by the trail user.

8.8 Trailheads and Parking

A trailhead is usually defined by the existence of a car parking area, often with picnic facilities, interpretive signage, a map panel of the trail showing sites of interest and distances to features along the trail and a Code of Conduct. It is a location where a (short or long) trail walk or ride can begin or end. Given that much of the usage of the Beverley Narrogin Transport Trail is likely to come from users from other areas, formal 'trailheads' are important.

A number of trailhead locations have been selected. Trailhead sites recommended are:

- Apex Park, Beverley;
- Pioneer Park near the old station, Brookton;
- Pioneer Park, Pingelly;
- Community Park, Cuballing; and
- Narrogin VIC.

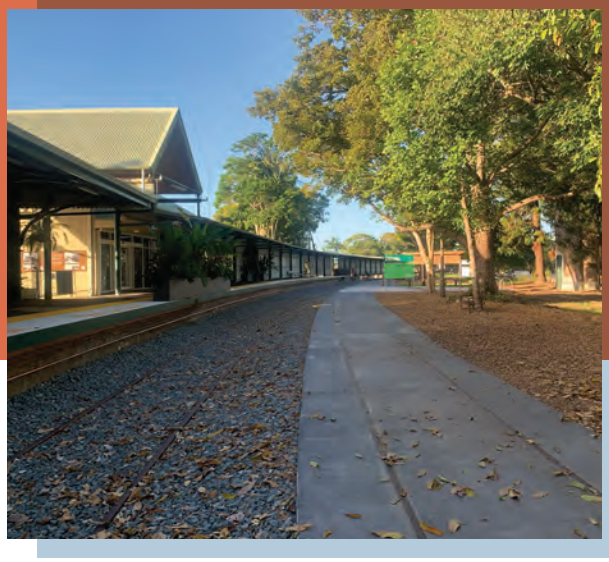
The relevant works tables (Section 7) show the items for inclusion at each trailhead and relevant costings. Facilities such as parking, and a picnic table or seats in the shade, interpretive information (on a map panel) showing distances to features and towns along the trail is important and will prove useful to all trail users.

Trailhead signage is a critical element to be included at trailheads. Trailhead signs are placed at the main entry point to a trail. They provide essential information to intended trail users.

Trailhead signs should include:

- Map panel showing trail route with points of interest (such as landmarks, attractions, seats, shelters, viewpoints and interpretive panel locations), any sections that are different from the rest of the trail in terms of use e.g. sections that may provide access for all, a "you are here" notation, a north point and a scale bar;

Trailheads present a unique opportunity to provide high quality starting/finishing and intervening attractions on a trail. On the newly opened Northern Rivers Rail Trail, Murwillumbah Railway Station has been turned into a very attractive trailhead.



A typical trailhead interpretive shelter. Usually, these shelters may contain two information panels (front and back, with general information, a map with the trail route and key features and important safety information for trail users.

- length of trail (distance and expected duration);
- classification coding with a short description (easy to extremely difficult using accepted colours for walking and mountain biking) and skill and fitness level required;
- personal safety precautions ("Be Safe" information);
- trail etiquette/Code of Conduct;
- environmental protection;
- photographs of key features and attractions;
- phone numbers for maintenance and Council Call Centre;
- emergency phone number;
- registration and reporting requirements;
- equipment recommendations; and
- any specific conditions.

Trailhead maps need to be designed to be photographed. This means they should:

- Use bold colours and be designed to be usable on a small screen;
- Protected by non-glare glazing which is easy to clean;
- Well-lit, not partially shaded nor silhouetted by the sun;
- Created for the needs of the recreational trail user;
- Oriented to north;
- Offer simple topology of the trail network and access points; and
- Be complemented by trail information signed on the ground.

For longer walks or multi use trails, other information for users may include:

- Use a map or trail guide;
- avoid walking in extreme heat or high fire danger;
- avoid creek crossings during floods or after heavy rain;
- always carry a first aid kit;
- trails should not be attempted at night;
- be careful on rocky or steep sections;
- when on sealed or gravel roads, keep to the verge; and
- taking shortcuts can cause erosion and you may get lost.

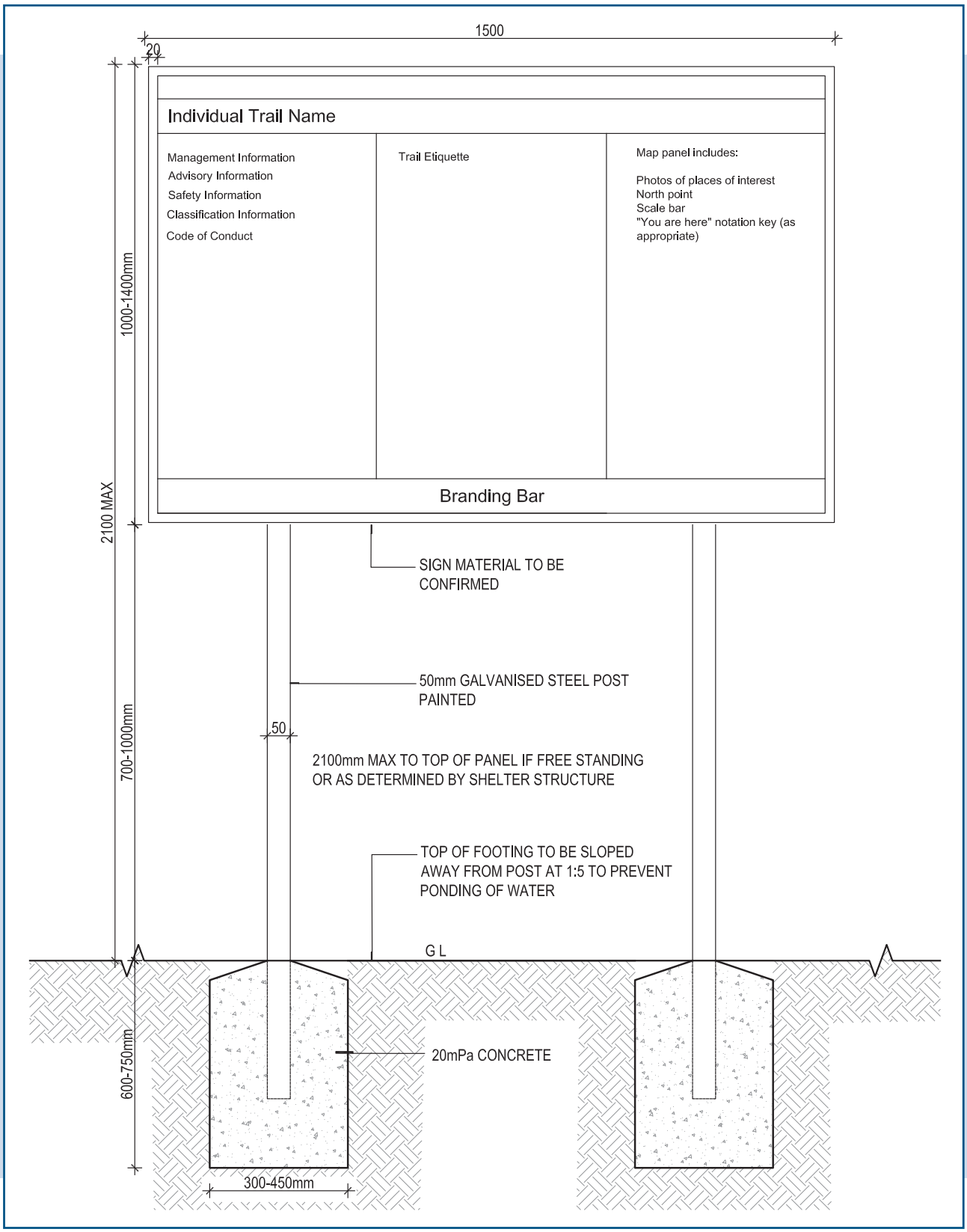
On all trails, include:

- EMERGENCIES – DIAL 000. If you do not have mobile coverage DIAL 112.

All trailhead signs should include a branding bar that is the primary identifier of the Council/s. The bar should include the Council/s logo and the individual trail logo (if any). The branding bar should always be at the bottom of the sign. An additional simple message to users such as "Please respect the natural environment" could be included in the branding bar.

Safety messages on trailhead signs should be distinguished through the use of a background tint.

Trailhead signs can be installed as a free-standing unit or included in a shelter. The shelter could be off the shelf or custom built (as seen above).



8.9 Trail Furniture

There are a number of scenic locations along the corridor well suited to the placement of seats that would benefit all trail users. An allowance has been made for the eventual installation of seats – at sites selected by the trail manager (costed in Section 7). Sites should have views over the adjoining countryside. Care should be taken in the selection of styles of seating and tables. Many styles commonly used on trails are more suited to backyard gardens, or city parks. Few look 'right' in the natural environment. Placement of simply constructed seats at intervals along the trail will benefit all trail users.

The choice of seating is important. It can really add to the trail user's experience and highlight local material and craftsmanship (above left on Cape Raoul in Tasmania). By way of contrast, the wrong seat in the wrong place facing the wrong way (above right in the John Oxley Reserve in Brisbane) can significantly detract from the user's experience.

8.10 Environmental Issues

A number of key environmental issues have been identified. These include:

- Clearing of vegetation along the corridor, and the and the possible future need for offset re-vegetation.
- The potential for the spread of weeds (and pathogens) during the construction phase and, potentially, through usage of the trail.
- The potential for sedimentation of watercourses as a result of trail construction and bridge works.

In addition, care will need to be taken in the ongoing maintenance of the proposed trail to ensure weeds and pathogens are not unwittingly spread by maintenance machinery. Ongoing clearing at the sides of the trail will be required to keep the trail corridor at acceptable widths.

Weed control will be an ongoing issue with the spread of dieback identified in community consultation (the consultants were informed that there is an issue with dieback in the Hotham River Nature Reserve through which the Green route would pass). Boot and tyre cleaning have been costed at both entrances to the reserve to ensure users clean their equipment.

Boot (and tyre) washing stations are one way of managing the spread of weeds. This one pictured here (for walkers only) is on the South Coast Trail in Tasmania.

8.11 Toilets

There is no standard accepted distance between toilets on a trail. One of the challenges is providing for the needs of both walkers and cyclists. Walkers cannot cover the same distances as bike riders in the same time and may therefore require toilets at closer intervals. Toilets at trailheads are a good idea given people start and finish a ride or walk at a trailhead.

The five trailheads in the towns and villages have functioning publicly accessible toilets (as does Popanyinning).

SECTION 9: OPPORTUNITIES

The Beverley Narrogin Transport Trail will provide several notable opportunities. There are a number of specific elements within the area encompassed by the proposed trail route that provide opportunities and reasons for why a trail should be built.

A set of opportunities was set out in the Interim Report; this set has been updated and significantly more detail is provided for the purposes of the draft Feasibility Study.

9.1 Satisfying an Existing Demand

The trail will satisfy an existing demand for cycling trails (as well as walk trails to a lesser extent). In the three years to 2018, 29% of Australians had a holiday that involved a cycling experience. Of these, 28% were categorised as destination cycle tourists while 72% were categorised as cyclists while on holiday (*WA Strategic Trails Blueprint 2022-2027*). Mountain biking in particular is enjoying significant growth. Mountain biking saw the greatest percentage increase in participation of trails based sports in Australia, growing by 81% with 174,000 new participants to the sport between 2017 and 2020 (*WA Strategic Trails Blueprint 2022-2027*). The definition of mountain biking used in the *WA Mountain Bike and Off-road Cycling Strategy 2022-2032* is that mountain biking can be broadly defined as cycling offroad on a variety of unsealed surfaces, typically through a natural setting. Mountain biking is a diverse activity that can be enjoyed almost anywhere from a backyard to a gravel road, as well as purpose-built trails.

There are growing markets that can be described as similar but distinct to mountain biking that also use trails and dirt roads for cycling recreation. They (along with mountain biking) are more broadly described as "adventure cycling" defined as any style of cycling that travels off bitumen seeking an experience enjoyed in nature and on two wheels (*Concentric Circles: Guidance for Trails Tourism Close to Perth 2024*). According to the *Concentric Circles* report, adventure cycling can be broken down into categories of mountain biking, bike packing/touring and gravel grinding. Each category has different engagement profiles, if sometimes overlapping.

For the Beverley Narrogin Transport Trail, the two key markets are gravel grinding and bike packing/back country touring (as defined in the *Concentric Circles* report). **Gravel grinding** encompasses a fairly broad sweep of riding activity but pertains mainly to long distance day rides – most often 100km+ - that seek out back country, dirt and fire track roads with little to no traffic. **Bike packing / back country touring** is about exploring remote places via single track trails, gravel and abandoned dirt roads. Daily distances tend to be shorter for backcountry rides (40-50km) and with stops to admire vistas and eat at the country bakery. Bike packing is all about slow travel exploration. Bike packers often stay at B&Bs, hotels, motels and caravan parks and eat out at cafés and restaurants. The cycle tourist is much more likely to undertake a range of other activities compared to non-cycle tourists, explaining why the cycle tourist's average spend is much higher than non-cycle tourists. Of interest is their tendency to eat at restaurants, go to licensed venues and go shopping; all activities which would benefit the economies of the Wheatbelt region.

The trail does not offer a product that falls neatly within these two types of adventure cycling; each offers elements appealing to both groups. Hence either trail will partially appeal to these groups though the Orange route is more likely to appeal to dedicated cycling users (as opposed to the 'cruiser' market – see below for further discussion on the cruiser market).

The survey results also provide a pointer to possible existing demand though the samples are drawn from a relatively small sample (375 responses) of any potential market. 69% of respondents live in the Perth metropolitan area suggesting that potential users are prepared to travel to use a trail of this type. 18.3% of respondents were from the Wheatbelt, suggesting a level of local demand. 95% of respondents owned a bike. 43% owned a mountain bike while 37% responded they owned an "other bike" – indicating they are likely to own more than one. This result suggests bike riders are the keenest potential trail users (though this may simply be the case that bike riding groups are better organised and ensured riders responded).

Importantly 95% of respondents said they would enjoy the opportunity to travel between Beverley and Narrogin on a trail off the Great Southern Highway. 65% of respondents said they would use both trails - the Green and the Orange – suggesting one is not more favoured than the other (though the precise route of the Green route was not known at the time the survey was done). When asked how they would use the proposed trail, 41% of respondents said they would use the Green and Orange routes as a loop returning to the point of departure while 18% said they would ride end to end and then return - out on one route and back on the other and 16% would ride or walk short sections e.g. out of a town and back again on the same route. Again, at that point, the relative distances of the trail routes was not known – this may influence how people use the trail. 66% of respondents said they would use the trail a few times/year, while 17% said they would rarely use it. 11% responded with 1/month. (More detailed analysis is included in Section 10).

The trail may satisfy an existing demand for walk trails to a lesser extent. There is an existing general demand for bushwalking trails in Australia (for domestic and international visitors).

Between 2016/17 and 2020/21, bushwalking saw a 66% increase from 1.252 million people/year on a bushwalk to 2.077 million/year (WA *Strategic Trails Blueprint 2022-2027*). There can be no doubt that some of this increase can be explained by the impacts of Covid19, particularly on people seeking recreation experiences to escape the stresses of the Covid19 period (though these were likely less in WA than in other states where there were significant lockdowns) and people holidaying within Australia due to the curtailment of international travel. However, the growth continued in recent years. AusPlay statistics for 2022 recorded (general) walking as the top recreational activity with 40.1% of West Australians participating. Bushwalking specifically was sixth most popular, recording 7% or 154,900 West Australians regularly engaging (this is an increase from 2020 figures of 4.8% or 107,000).

The region where this trail is proposed fell outside the strategy area of the *Concentric Circles* report but it made some relevant findings. The report assumes that a destination-based hiking visitor from Perth Metro would seek a minimum of 25km+ of available trail experience for an overnight trip. This assumes an average of 3-4km/hour walking pace and adequate levels of trail quality and features of interest. A trail between Beverley and Narrogin would address this market and the study shows users would be prepared to travel.

Research into the national multiday (overnight) walking market (cited in the *Concentric Circles* study) showed approximately 3.3 million Australians have been on an overnight walk in the past five years (2019-2023) or have one planned in the next year. There are many examples of such trails in Australia and overseas offering different experiences and a variety of distances. Trails include the iconic Bibbulmun Track; however there are also suites of long distance tracks in Tasmania and New Zealand.

Demand continues to grow and be (partially) met. A recent example is the recent opening of a new multi-day hiking trail through the alpine scenery of southern New South Wales. The entire Snowies Alpine Walk in Kosciuszko National Park officially opened in December 2024. The Walk is a 56 kilometre four-day walk that links the alpine locations of Guthega, Charlotte Pass, Perisher and Bullocks Flat.

Tasmania's Next Iconic Walk Feasibility Study completed in 2021 (cited in the *Concentric Circles* study) showed that:

- 60% of overnight visitors prefer daily distances of less than 12km. Nearly half of walkers prefer to walk 4-6 hours/day. A third of respondents preferred 3 nights or less for total trip time. The Collie River Cultural Walk could be achieved in this time frame.
- Compared with the average Australian, overnight walkers are younger. 57% of walkers are aged between 18-39, compared with 25% of the sample. Participation in walking falls away at around age 40. 45% of walkers have children under 18, compared with 14% of non-walkers.
- 26% of overnight walkers sought full accommodation and meals on a trip with 43% seeking some form of shelter (serviced and non-serviced). 31% were tented hikers.
- Retirees preferred fully serviced walks while young-mid aged singles and couples with and without children preferred tented accommodation. Older couples and families preferred some form of shelter during their overnight hike.

Developing a trail that responds to the demand for overnight and multi-day hikes would be consistent with outcomes sought in the WA *Strategic Trails Blueprint 2022-2027*. One of the guiding principles within the visitor contribution section is to ensure opportunities are realised for trails to support coordinated growth in tourism resulting in increased visitors, spend, new business enterprises and job creation. Growing the visitor economy can be achieved through a number of strategies including:

- **STRATEGY H1**
  Identify iconic trails to be developed and promoted as the best in Western Australia and implement a staged program of trail development and promotion for iconic trails.
- **STRATEGY H5**
  Identify locally and regionally significant trails with the potential to stimulate tourism economies through increased intrastate visitation.

It is not reasonable to assume that a walk trail between Beverley and Narrogin primarily along the highway and road system will have the same appeal as the iconic long distance trails mentioned above. However, the survey indicates some demand (more for sections or loop trails out of each town).

9.2 Becoming a Regional Centre for Trails

Just as Collie and Dwellingup are developing themselves as Trail Towns, an opportunity exists for several towns of the Wheatbelt to develop as trail destinations. Beverley, Pingelly and Narrogin for example are well positioned to emulate the progress being made in other trail towns. Though they do not have the Bibbulmun Track or the Munda Biddi passing through their town centres, what the towns between Beverley and Narrogin do have is a unique opportunity to develop a long distance transport trail of approximately 110km (the Green route – not including a link from Beverley to Caudle Road) and over 200 kilometres (the Orange route) connecting the 5 towns, and to capitalise on the existence of existing and proposed trails in the towns and in the region. The *Pingelly Mountain Bike and Cycling Strategy 2022-2026* expresses a desire that Pingelly has of becoming the 'trails centre for the southern wheatbelt'. Promoting the trail as a small part of a much longer trail (which the Shire of Pingelly CEO has done) makes the Wheatbelt a more attractive destination and this trail more attractive as part of a longer more appealing walk and ride.

9.3 Specific Opportunities – the Green Route

9.3.1 Opportunity to Provide Local Trails

The Project Working Group has indicated the view that the Beverley Narrogin Transport Trail will have the added benefit of providing a local trail for local people. This is a legitimate outcome; a trail constructed alongside the railway reserve would provide a local trail to be used by local people on a regular basis. Many trails have "backgate" users – whilst they do not spend significant amounts of money using a trail, they do use trails regularly. It is worth noting that the combined population of the five shires is a little over 9,000 people. It is possible that local people will use parts of the Beverley Narrogin Transport Trail on a regular basis. 23 respondents from the Wheatbelt said they would use the trail a few times/yr while 10 said they would use it monthly and 6 would use it weekly (from a total of 60).

Each of the Local Governments along the route offer a range of trails (or are proposing a number of trails) for local and visitor use (these were listed in the Interim Report). The Beverley Narrogin Transport Trail provides an added trail attraction to what is on offer and what is proposed.

9.3.2 Opportunity to Provide Trails for Existing and New Visitors

The *Pingelly Mountain Bike and Cycling Strategy 2022-2026* identifies a series of actions which the Shire believes will position Pingelly as the Trails Centre for the region by delivering a series of trails aimed at the 'cruiser market' – families on holidays who incorporate cycling as part of that holiday. The Council believes that the Green route will be one of these trail projects with appeal to this market. The strategy includes relevant observations:

- The 'cruiser market' represents 9% of the Australian travelling population aged18 - 75 (approximately 1,416,000 people).
- It is typically made up of families with school-age children with a casual interest in cycling who tend to take shorter holidays (less than a week) in familiar places. Three quarters are 'cyclists while on holidays'.
- Cycling experiences should be easy, unchallenging, casual, low-risk, inclusive, covering short distances and involve sightseeing.
- Cycling is an added activity for this group rather than the primary activity.

The strategy notes that outlying trails (which the Beverley Narrogin Transport Trail would be) are essential to attract visitors (as opposed to short in-town trails). Discussions within the Project Working Group indicate that other project partners also believe this should be the target market for this trail.

The brief for the project indicates the trail would form a strategic link in the regional trails network by:

- Directly connecting the towns of Beverley, Brookton, Pingelly, Popanyinning, Cuballing and Narrogin;
- Connecting to the transport trail to planned shires within the Shire of Beverley;
- Eventually linking to York, Northam, Toodyay and the Perth Hills from Beverley;
- Connecting to a planned rail trail from Narrogin to Williams; and
- Linking Dryandra National Park (a planned primary regional trail destination) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

This approach suggests the trail is being viewed as a regional facility to attract a range of users from across south western WA (and further afield).

Information on the bicycle funding programs from the WA Department of Transport indicate that transport trails often support recreational and tourism trips between towns and regions, suggesting they are primarily designed as regional facilities (they will of course have local use as well).

The built trail (should it proceed) should attract users from the Perth metropolitan area who will, in many cases, make it part of a longer regional ride through the Wheatbelt and beyond. The key question is the relative attractiveness of the two routes, noting that their market appeal will be different – the Green route targeting local people and existing and potential new visitors looking for a safe off-road relatively short ride as part of a holiday (who already have a range of trails that may satisfy this demand) while the Orange route targets cycle tourists (discussed below).

9.4 Specific Opportunities – the Orange Route

9.4.1 Attractive Scenery

Often in so many directions at certain locations, spectacular views would be provided. What is on offer from this ride are varied vistas (in both the near and far visual field) offering trail users "up close and personal" interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant mountains are attainable along sections of the roads, while also on offer is the opportunity to ride through Dryandra Woodland National Park on a constructed road (there may also be opportunities to ride within the park depending upon outcomes of management planning for the park).

9.4.2 Delivering on Identified Regional Outcomes

The *Avon Central Coast 2050 Cycling Strategy* identifies cycle tourism as a key growth adventure tourism activity, giving cyclists a range of unique trail experiences and supporting local economies in areas traditionally not visited. The Avon Valley is relatively close to Perth and offers bike riders and visitors with a unique opportunity to develop longer, multi-day riding experiences allowing them to explore some impressive natural landscapes, food and wine locations and heritage sites while staying in local accommodation. Having a selection of settlements within a relatively short distance, and accessible by generally flat terrain along the river, the Avon Valley provides opportunity for an assortment of loops centred on Northam, Toodyay and York. These can provide a variety of landscapes and attractions including rolling farms, natural bush and heritage sites. The transport trails that will deliver this outcome extend to Beverley in the *Avon Central Coast 2050 Cycling Strategy*; it is reasonable to assume that connections to Brookton and beyond will be considered in the future. This market is more likely to be attracted by the Orange route.

The *Concentric Circles: Guidance for Trails Tourism Close to Perth* report (May 2024) has been recently finalised and took a region-wide approach to the development of trails within a defined distance from Perth including the five shires that are project partners for the Beverley Narrogin Transport Trail. The report sets out of directions for the region to enable it to develop its trail market potential. The report looked at both the present situation and recommended some implementation actions that are relevant to consideration of the Beverley Narrogin Transport Trail.

The report found that in terms of cycle trails:

- The Shire of Beverley currently offers local trails with no trail or network of regional status;
- The Shire of Pingelly offers local trails only;

- The Shire of Narrogin offers Foxes Lair, the Commonage and Railway Dam which were all recommended in the Pump Track and MTB Trail Feasibility Study as appropriate sites for development of purpose designed mountain bike trails of up to approx. 20km. Such developments would remain as a local trail designation.
- In the Shire of Brookton, there is limited potential for trail-specific development given non-appropriate landscapes.

The report stated that neither Narrogin or Pingelly, even with proposed mountain biking developments, have the necessary capacity or attractiveness to achieve Regional trail destination categorisation (the document refers to criteria for national, regional and local mountain bike trail destinations set out in the WA Mountain Bike Management Guidelines). Whilst length of available trails is a critical measure (a Regionally Significant destination should have 20-80kms of trail), a range of other factors contribute to the determination. Consequently, the *Concentric Circles* report shows Beverley, Brookton, Pingelly, Cuballing and Narrogin as local trail supporting destinations.

The report did identify the potential for adventure cycling within the sub-region consisting of the five shires. The report included an action to support long distance adventure cycling experiences through the development of long-distance trail (ride) extensions. This action is based on a recognition of the growth in the adventure ride market, noting it requires less trail development / investment and more conceptual itinerary/route development.

The brief for the project includes a description of what is being sought from the proposed Beverley Narrogin Transport Trail. This includes the outcome that the trail would link Dryandra National Park (a planned primary regional trail destination as designated in the *Concentric Circles* report) with secondary/local trail destinations and adjacent primary regional/signature trail destinations of Collie, Dwellingup and York.

The *Concentric Circles* report concludes that an agglomeration of attractions and facilitation centres in an area covering Dryandra, Pingelly, Narrogin, Cuballing, Wandering and Williams could be developed to represent a 'destination' with a focus on adventure riding. Some mid-level development of local mountain biking infrastructure (Narrogin and Pingelly) would represent added value drawcards for the destination as would developing appropriate, improved hospitality and event-based drivers.

This direction to focus on adventure riding is reflected in other relevant documents. The *Wheatbelt Regional Tourism Development Strategy 2023-2033* includes a number of initiatives to improve the visitor experience for cycle tourists including Seek the development of additional cycle trails and itineraries, focusing on linking key tourism attractions and towns, utilising existing tracks, service roads, and fire breaks to connect destinations to encourage increased length of stay and regional dispersal. A much earlier strategic document (*Wheatbelt Development Commission – Regional Planning and Infrastructure Framework: Part A regional strategic planning* 2015) stated that the development of an overnight tourism (rather than a day-trip) market is essential.

The Shire of Beverley Trails Master Plan (2024) includes a general action to formalise on-road cycling routes (road & gravel) to highlight the best riding experiences across the region. Specific actions include embracing opportunities and priority projects outlined in the *Avon Central Coast 2050 Cycling Strategy* and other "opportunities" but there are no specific proposals. The Orange route will clearly be addressed at the cycle touring market and can deliver on some of the outcomes being sought by the various relevant strategies (and adventure riding) and specifically offers the chance to provide a signposted developed cycle link to the Dryandra Woodland National Park. Developing the Orange route does not necessarily preclude the development of the other initiatives that the project partners are investigating to provide for different market elements such as local people and caravan park visitors. It could be argued that the Green route also goes some way to addressing the outcomes being sought in the above strategies (noting the existing demand shown in the survey).

9.5 General Opportunities

9.5.1 Business Development

There are a range of business opportunities for private sector investors arising from the potential development of a trail. Providing accommodation, food and beverages, supported and guided tours and equipment, are some of the businesses that have arisen along other trails. The Tumbarumba Rosewood Rail Trail (in southern NSW) led to the development of 9 new or expanding businesses in the rail trail's area since the opening of the rail trail (in a period of 12 months) (*Rail Trails for NSW Evaluation Summary* 2022). A 2021 survey of New Zealand's 22 Great Rides surveyed 200 businesses along the 22 different routes and found that 47% had been established since the opening of the nearby trail (22 in all). 16% of those businesses established solely because of the trail while the trail had been a factor in the formation of another 75% of them (*Angus and Associates* 2022).

9.5.2 Attracting New Visitors and Encouraging Existing Visitors to Stay Longer

A trail has some potential to assist in keeping existing visitors longer in the area and potentially attract new visitors. Australians are increasingly looking for passive, non-organised recreation opportunities, often in natural or near-natural settings. Demand for this type of opportunity will only increase as the population ages. While walking remains the most popular of these activities (and is likely to remain so as the population ages), off-road cycling shows a growing and often unmet demand within the trails market. The advent of e-bikes will only accelerate the popularity of cycling on trails. Electric and power assisted bikes (e-bikes) represent one of the fastest growing segments of the bike industry, as they allow riders to extend their cycling distances. E-bikes help in overcoming hilly terrain or lack of fitness, can assist in rehabilitation after injury or illness, and are a cost-effective and Green transport solution. They also improve trail accessibility for older riders who can access areas and ride trails that they would not normally be able to. Australian e-bike sales have just recorded their fourth consecutive year of rapid growth. For the 2019–20 financial year sales were 48,000 Beverley Narrogin Transport Trail Volume 2: Feasibility Study November 2025 Mike Halliburton Associates and Transplan Pty Ltd 109 units, up almost 50% from 32,500 units sold in 2018–19. Using a $3,000 average retail sale price estimate would mean $216 million in annual retail sales this current 2020–21 financial year for a product category that virtually didn't exist in Australia 5 years ago and is only set for further development and growth. In WA, 15% of WA mountain bikers use an e-MTB (*Concentric Circles: Guidance for Trails Tourism Close to Perth* 2024).

The Destination Management Plan Australia's Golden Outback 2023-2033 (which includes the Wheatbelt) identifies building a more diverse economy as critically important for the region's resilience, noting that 10% of the region's employment is in tourism but the sector only provides less than 2% of its Gross Value Added.

9.5.3 Non-monetary Benefits

Trails can improve community connectivity and provide increasing recreational options for local people thus contributing to both physical and mental health of communities through which they pass.

9.6 Trail Users

9.6.1 Visitors

Recreation trails provide an important piece of tourism infrastructure and provide experiences in the nature-based tourism market and particularly the adventure tourism market.

Recent research has shown that the Australian and New Zealand cycle tourism market is anticipated to reach over $23 billion by 2033 (an annual growth rate of 11.8%). In Australia, the integration of cycling with complementary offerings such as wine tourism, gastronomy, and cultural trails has strengthened Australia's attractiveness. The age group 18-30 segment will have the fastest growth rate as people in this segment view cycling as a low cost, flexible and socially engaging way to explore natural attractions (www.grandviewresearch.com/press-release/australia-new-zealand-cycle-tourism-marketanalysis)

Visitors most likely to participate in cycling or walking activities are 'nature visitors'. According to Tourism Research Australia (TRA), the majority of nature visitors in Australia are domestic visitors rather than international visitors.

A number of high-profile trails (cycle, shared use and walk) in Australia and New Zealand provide examples of user numbers that can be achieved on tracks and trails (a product within nature-based tourism).

- Despite Covid-19 effectively closing its international borders, the 22 Great Rides (cycle trails) in New Zealand's Ngā Haerenga cycle trail network attracted 2.19 million trips in the year ending 30 June 2021. This is an increase of more than 204,000 trips on the previous year, or 10.3 per cent growth in trail usage. The number of visitor nights in accommodation providers along the Great Rides cycle trails was 3.62 million in the year to June 2021. It was an annual increase of 560,000 visitor nights, representing growth of 18 per cent (*Angus and Associates* 2022). This is a network of trails with rides of varying lengths across the country.
- The first section of the Northern Rivers Rail Trail in NSW (a 24km section from Murwillumbah to Crabbes Creek) opened in March 2023. As of June 2025, the trail has been used by 261,820 people (a daily average of 307 people). The use of the trail Beverley Narrogin Transport Trail Volume 2: Feasibility Study November 2025 Mike Halliburton Associates and Transplan Pty Ltd 110 is far above the forecast numbers of 27,000/year. The second section of the trail (a 14km section from Casino to Bentley at the other end of the 132km railway corridor) opened in March 2024 and had attracted over 43,000 users by July 2024. The user numbers doubled in June 2024 as the first 3 months had seen unseasonally high rainfall which deterred users (data sourced from relevant Councils using on-trail counters).
- The Tumbarumba Rosewood Rail Trail – a shared use trail - in southern NSW is the first rail trail opened in NSW on a Government-owned railway line. It opened in April 2020 and has been used by over 78,000 people up to the end of September 2025 (data sourced from on-trail counters).
- The Munda Biddi Trail is WA's off-road cycle touring equivalent of the Bibbulmun Track. Running from Perth to Albany (a distance of 1,088km), it attracts 21,000 users per year (*Munda Biddi Website*).
- Use of the Bibbulmun Track (WA's long-distance walking track linking Perth and Albany) increased from 10,000 in 1998 to 35,000 in 1999-2000 to 137,500 in 2003 (*Colmar Brunton* 2004) to over 167,000 in 2008 (*Colmar Brunton* 2009). In 2015, it was used by over 300,000 people (*Hughes et al* 2015). Using AusPlay data from 2023, the Bibbulmun Track Foundation estimated that usage of the Track had tripled since 2015 (https://www.bibbulmuntrack.org.au/hiking-participation-ausplay-results-tojune-2023/) 79% of 2007/08 users came to the track specifically to use the track.

9.6.2 Local Users

Tourism numbers are important. However, it is important not to overlook the contribution of local residents to the success of a trail.

In 2001, the Mundaring Shire (in Western Australia) trail network was used by over 200,000 people (*Jessop and Bruce* 2001), having grown from a low base when the network was first fully opened. Only 10% of these users were locals (residents of Mundaring Shire) with many other users drawn from the Perth metropolitan area. The total annual visits (people generally use trails more than once a year) were a staggering 2.454 million visits annually, with local residents accounting for 63% of these visits.

It should be noted that the combined populations within the five project partners is a little over 9,000 people; the Mundaring Shire local numbers will not be replicated on the Beverley Narrogin Transport Trail (regardless of which route is chosen).

9.7 How Much Do Trail Users Spend?

Successful trails are already attracting large numbers of visitors and they are spending reasonable amounts of money both in the local economies and in the broader economy. The following figures provide a snapshot of expenditures from a range of trails to demonstrate user expenditures. (Most of the data is drawn from rail trail studies – this simply reflects where the work has been done).

- An independent economic assessment analysed the benefits of the Rail Trail to the Tweed since opening on 1st March 2023. The report found that rail trail has attracted significant visitor spending, driving a 15.7% average increase in monthly spend compared to the previous year and stimulated growth in unique visitors(+23% year-over-year) and visitor transactions (+19% year-over-year). Businesses along the trail reported increased visibility, foot traffic and in many cases, higher revenues in both Murwillumbah and less-frequented hinterland villages. The total value of visitors spend has increased by $3.717 million compared to the previous year (*Muller Enterprises* 2024).

- The *Rail Trails for NSW Evaluation Summary* (2022) identified that spending in the Tumbarumba region (NSW) was up by 20% over the two six-month periods either side of the Tumbarumba Rosewood Rail Trail opening. Discretionary spending on leisure based activities in Tumbarumba was up 55% for the same six-month periods.

- A study of the Brisbane Valley Rail Trail (QLD) (*Service Innovation* Alliance 2021) shows that rail trail users who use the trail as day trippers are spending an average of **$118.88/day**, while overnight visitors are spending **$179.81/day**. Overnight visitors are staying an average of 2.75 nights, increasing their total spend to almost $500/trip.

- The Murray to the Mountains Rail Trail in North East Victoria is one of the better known rail trails in Australia. Research work undertaken over Easter 2006 (*Beeton* 2006) found that average daily expenditure was **$258/user/day**. The bulk of this expenditure was on food and beverage (57% of daily expenditure which equates to $147/user/day). Beeton applied accepted economic multipliers to these figures and calculated that the direct contribution to the local economy per user per day was in excess of $480. Follow-up work by Beeton (2009) made similar findings.

- Users of New Zealand's Otago Central Rail Trail are spending **$NZ 177/day** with the average length of stay in the region of 3.8 days. There is a range of expenditures – users doing the whole trail spend $NZ 166/day while those doing part of the trail spend $NZ 247/day. The trail created 81 direct jobs and a total of 102 jobs. Accommodation derives 41-48% of the benefit, followed by food and consumables. The trail is contributing some $3.55 million directly to New Zealand Gross Domestic Product (GDP) and $5.2 million in total (*Central Otago District Council* 2015).

- Users of New Zealand's Hauraki Rail Trail are spending around $5 million/year using the trail. Visitors are spending an average of $172 per trip, and 50 full time positions had been created because of the trail.
(https://www.stuff.co.nz/travel/destinations/nz/94123407/hauraki-rail-trailcontributes-millions-to-local-economy).

- At the broader New Zealand level, 1.065 million users of the Great Rides of New Zealand network spent an average of $NZ 892.20/trip (for a total expenditure of $NZ 951 million) in 2021 (*Angus and Associates* 2022).

- The economic impacts of the Bibbulmun Track (WA's long-distance walking track) have been studied over two periods (in 2003 and 2007/08). In 2003, the track was shown to have generated **$21 million** of expenditure **annually** by track users, well in excess of its one-off construction costs of $5 million (*Colmar Brunton* 2004). More recent figures show an increase in this amount (due to an increase in both users and how much time they spend on the track). The estimated expenditure in 2008 was around **$39 million annually** (*Colmar Brunton* 2009). The 2007/08 study shows that the average day walker (some 70% of all users) is spending $50-$60/day, while those walking the track for 2-3 days are spending around $200/visit. Those using the trail for 6 weeks or more, while small in number, are spending $1,400/visit.

- The Mundaring Trails Network, 1 hour from the Perth CBD, injected some $**12.62 million** into the local economy and a **further $15.21 million** into the State economy annually. Local residents spent $4.06/visit to the network and visitors (primarily day users) spent $23.71/visit. The key is that the total number of trips on the trails studied was a staggering 2.454 million visits annually (*Jessop and Bruce* 2001).

It is important to understand how trail users spend their money. Trail users spend money before coming to a trail and in towns and villages along the way. The expenditure data shown below represents an amalgam of existing research data on visitor expenditure related to rail trails.

Reviewing the expenditure data from these 7 studies allows an understanding of average expenditure patterns of trail users for overnight trail users (the 2022 *Angus and Associates* study is not included as the data was not presented in a way that could be easily converted). Table 18 shows average amount spent by trail users and the broad sectors in which they spend their money (average expenditure per sector is drawn from most of the studies listed above – not all provided detailed data. The data was collected at different times and noted in different currencies. The figures below represent averages converted to 2024 Australian dollars).

(Overnight users include those staying 1 night or more in the region to use a specific trail).

Table 18: Trail user expenditure by category for overnight visitors (rail trail and cycle trails)

Sector	Average expenditure/day
Accommodation	$65.64
Food and beverage	$95.51
Transport	$28.70
Retail	$37.38
Other (including cycle maintenance)	$26.97
TOTAL	**$254.20**

Sources: Service Alliance (2021); Beeton (2003); Beeton (2006); Beeton (2009); Market Equity (2004); NZ Ministry of Business, Innovation and Employment (2013); Central Otago District Council (2011).

Table 19 shows average amount spent by trail users on day trips and the broad sectors in which they spend their money. The data was collected at different times and noted in different currencies. Average expenditure per sector is drawn from most of the studies listed above – not all provided detailed data. The figures below represent averages converted to 2024 Australian dollars.

Table 19: Trail user expenditure by category for day-trippers (day tripper expenditure was only available for some of the studies)

Sector	Average expenditure/day
Accommodation	$0
Food and beverage	$66.21
Transport	$32.73
Retail	$41.73
Other (including cycle maintenance)	$34.76
TOTAL	**$175.42**

Sources: Service Alliance (2021); Beeton (2003); Beeton (2006); Beeton (2009); Central Otago District Council 2011); Colmar Brunton (2009); Hughes et al (2015); Market Equity (2004); Manning et al (2000); NZ Ministry of Business, Innovation and Employment (2013)

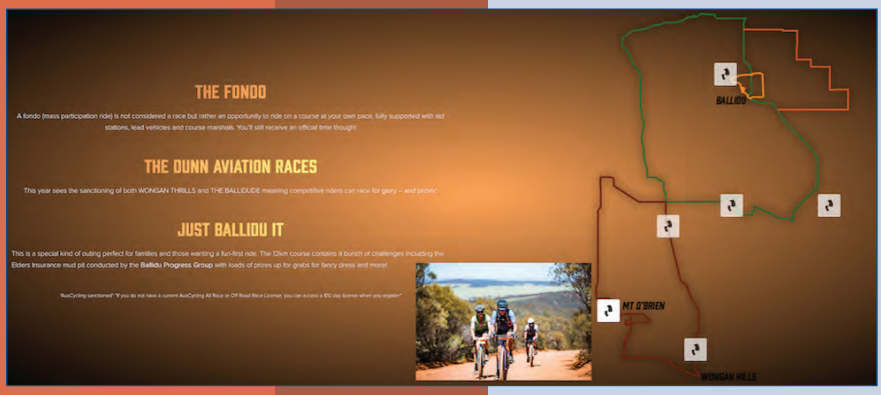
9.8 What Types of Businesses Serve Trail Users?

A trail generally offers the opportunity for existing businesses to expand and new businesses in this sector (and other sectors) to develop, employing more people in the region. Identifying specific business opportunities along a trail that may take years to develop is not a simple task. Businesses that have succeeded elsewhere are in the fields of:

- Equipment hire;
- supported tour opportunities;
- guided walking/cycle touring;
- off-trail accommodation; and
- food and beverages.

A trail increases the opportunities offered to existing businesses that currently provide relevant services to provide such services on a more regular basis. These types of examples are critical economic opportunities to diversify and solidify the sub-region's economic base.

- The *Rail Trails for NSW Evaluation Summary* (evaluating the success of the Tumbarumba Rosewood Rail Trail) found that the economic activity in the Tumbarumba region during the June to December periods 2019 and 2020 increased by 20% from $14.0 million to $16.9 million Interestingly, the Tumbarumba Rosewood evaluation found that spending on consumer staples increased 14% in Tumbarumba once the Tumbarumba Rosewood Rail Trail opened. The evaluation report identified that it was likely that the rail trail contributed to this increase due to visitors staying in the town, visiting the supermarket and similar outlets. It is not only the obvious businesses (accommodation, cafés, bike hire businesses) that take positive outcomes from a trail.



Examples of promotional material for various gravel riding events in WA.

- A New Zealand study (*Angus and Associates* 2022) of the impacts of the Ngā Haerenga cycle trail network (the 22 Great Rides network) shows that visitor spending attributable to the Great Rides Cycle Trails was $951 million in the year to June 2021, an increase of $221 million from the previous year, or an impressive 31% growth in economic activity. These economic benefits have been driven solely by domestic users as virtually no international visitors were allowed into New Zealand during this period.
- Earlier New Zealand research across four recreation trails subject to detailed research (*New Zealand Ministry of Business, Innovation and Employment* 2013), 1 in 5 businesses surveyed reported that they had either expanded their services (e.g. added capacity) or added new services since the trail opened in their region. These ranged from provision of cycle tours to cellar door tasting sessions, but were commonly in the provision of accommodation, transport or shuttles, or cycle hire. There was anecdotal evidence that trails have been beneficial for existing businesses either by absorption of existing excess capacity or by spreading the risk through the diversification of product.
- On the Hauraki Rail Trail in New Zealand, one in seven businesses along the trail have adjusted their offerings to meet the needs of cycle trail users (https://www.stuff.co.nz/travel/destinations/nz/94123407/hauraki-rail-trailcontributes-millions-to-local-economy)

9.9 Central West Cycle Trail, NSW – a Case Study of Trail Benefits

This trail was opened in 2021 and links a large number of small towns in NSW's Central West region and provides a good illustration of the range of benefits offered by cycle touring trails. The cycle trail follows the quiet backroads in a circuit connecting the towns and villages of Mudgee, Gulgong, Dunedoo, Mendoora, Ballimore, Dubbo, Geurie, Wellington and Goolma. The quiet cycle trail features rural landscape, native bush areas, villages, small towns and regional cities on a combination of sealed and gravel roads.

USER NUMBERS AND VISITOR NIGHTS

Evidence to date has only been anecdotal but what has been observed makes powerful arguments for the benefits of cycling trails. One town resident of Dunedoo noted an average of around 10 to 20 people a day, but up to 45 riders a day passing through in peak times. At any one time, there can be 100 riders on the trail somewhere.

ECONOMIC IMPACT

Reports are that users are spending around $75/night/person at a range of cafés, bakeries and accommodation options. A recent weekend event (Mendooran Food Cycle 2025) attracted 80 cyclists and the CWCT Committee sent some $4,000 off to two local community organisations. The local Showground also picked up $700 in camping fees for the event (information drawn from:

- www.bicyclensw.org.au/the-centralwest-cycle-trail-is-open
- www.abc.net.au/news/2021-11- 13/central-west-cycle-trail-sparking nsw-economy, and
- www.centralwestcycletrail.com.au/traildescription) and
- www.centralwestcycletrail.com.au/trail-description)

The Central West Cycle Trail

Only 36km of the 400km are on 'busy' roads. No leg between settlements is more than 65km (around 4 hours of riding). Gravel roads with arching eucalypts in some sections and sealed roads in others – the CWC really explores all the central west has to offer. For the more adventurous there are side trips with creek crossings, loose rocks and sharp climbs which link up to the main route again.

www.bicyclensw.org.au/the-central-westcycle-trail-is-open/

"All of us in our little cycling group had been overseas for these week-long cycling holidays and we were frustrated that Australia and particularly NSW wasn't offering anything like that. We know how much trouble we'll go to, to get a week-long holiday in France or Italy in the past, so we needed to have one here. And because almost all of the route is on country roads and fire trails, it's pretty rare to get passed by a car."

- BARBARA HICKSON, PRESIDENT OF THE CENTRAL WEST CYCLE TRAIL GROUP.

"Our seven rooms are booked out on most nights by cyclists, whereas it used to be just the odd shearer or motorist needing a break. I'm employing more staff and putting on kitchen hands to try to make it a pleasant experience for everyone. We didn't realise how big it (the CWC) was going to be, I didn't realise cycling was so big."

- KYLIE WARD.

9.10 Cycle Events

Cycle trail development (the Orange and the Green routes) have the potential to attract events – this is a rapidly growing feature on trails. The Canola Classic has quickly become one of WA's beloved mass participation rides through in-bloom canola fields in the Shire of York. Distance son offer vary and the rider can choose which best suits them. The rides are designed to be accessible but are challenging with 600m and 1200m of climbing over the two routes. The rides are fully supported with an aid station. Individuals and teams can enter. The organisers claim that the Canola Classic celebrates cycling but also the region and families and suggest users make a weekend of it and explore the Avon Valley's wildflower trails, check antique fairs, visit miniature railways, take hot air balloon rides, stargaze and hit farmer's markets, eateries and wineries.

The ABC recently reported on the Backroads Gravel event held in Nabawa, 480kms north of Perth www.abc.net.au/news/2025-08-17/boom-in-gravel-grinders-hitting-wa-regional-dirtroads/105646670. The 2025 competition, held in mid-August, attracted 737 participants, with about 50 per cent travelling for the competition. The article noted the interest in gravel bikes picking up in last 5 years. The added safety of isolated tracks draws people to the offroad discipline (noting that this appeal will be apply more to the Green route). The article reports that WA will be centre stage when Nannup hosts the 2026 Gravel World Championships with 3,000 competitors, potentially bringing up to 10,000 visitors. The WestCycle chief executive interviewed for the article indicated that even small-scale events such as annual Bike it to Ballidu have big benefits. Ballidu has only 58 residents but was set to play host to 700 hundred visitors for its September 2025 event.

SECTION 10: BUSINESS CASE – USER NUMBERS AND EXPENDITURE FORECAST

10.1 Introduction

It is always difficult to predict the economic impact and user numbers of a new trail. Recently developed rail trails provide a good indication of the visitor numbers that can be achieved as trails open (the three listed below are close to major markets and in well-visited regions). These numbers also indicate that trail user numbers can be affected by any number of events. It is acknowledged that the Beverley Narrogin Transport Trail is not a rail trail, but good recent data is not that easy to find and rail trails have been researched. There has been a large number of mountain bike trails and parks opening in Australia in recent years. However, these are less comparable to the proposed Beverley Narrogin Transport Trail than rail trails are.

- The Tumbarumba Rosewood Rail Trail in NSW opened in April 2020 – at the very start of the Covid-19 pandemic. User numbers grew steadily since that time – the numbers as of September 2025 were 78,050 (numbers who passed through the track counter at Tumbarumba). The first year drew the biggest user numbers of over 19,000 – limitations on international and domestic travel meant that tourists were looking for experiences close to home. In addition, this was the first rail trail in NSW on a State Government rail corridor – there would be some novelty value in that appeal. In the past 4 years numbers have been steady (with a slight decline each year) – with the last 2 complete years (April-March) yielding around 10,000 users/year.
- The first section of the Northern Rivers Rail Trail in NSW (a 24km section from Murwillumbah to Crabbes Creek) opened in March 2023. As of June 2025, the trail has been used by 261,820 people (a daily average of 307 people). The use of the trail is far above the forecast numbers of 27,000/year.
- The second section of the trail (a 14km section from Casino to Bentley at the other end of the 132km railway corridor) opened in March 2024 and attracted over 43,000 users in its first 4 months of operation.

These trails have all opened in a time when social media is a very strong component of marketing. This medium provides very quick marketing via virtual "word of mouth" as well as use by trail managers. By contrast, in previous times, trail usage rates have been "slow burns" taking time to reach a large number of users. Visitor numbers on the Bibbulmun Track grew from 10,000 when the new alignment was first opened in 1997 to over 167,000 in 2008 (*Colmar Brunton* 2009) to over 300,000 in 2015 (Hughes *et al* 2015). Using AusPlay data from 2023, the Bibbulmun Track Foundation estimated that usage of the Track had tripled since 2015 (https://www.bibbulmuntrack.org.au/hiking-participation-ausplay-results-to-june2023/). This usage is on a trail that had existed in its entirety for many years but was substantially altered and reopened in 1997 (although new sections of it had been opened prior to its grand opening). Visitors included those on 'local trips', day trips and overnight or longer stays (including those who travelled from end to end).

A dramatic increase in visitor numbers such as experienced by the three rail trails cited and the Bibbulmun Track can be attributed to very good marketing of the product (as well as the quality and appeal of the product). The economic impact of any proposed trail is primarily dependent on the extent to which the trail is marketed and promoted. 177 people (69% of respondents) were from the Perth metropolitan area

and indicated they would use the trail a few times/year, while a further 29 people said they would use it monthly. Both these responses indicate that repeat visits may be a critical factor in any trail's success.

A trail will bring additional tourists and keep them longer in the area. Other possible benefits from developing the trail include:

- Improvements to community connectivity;
- Increasing recreational opportunities for local people; and
- Creating opportunities to build on existing industries and enterprises of the area.

A trail such as the proposed Beverley Narrogin Transport Trail will have attraction to visitors. However, it will also add to the stock of existing trails for local people – people who live in towns and villages within easy reach of the trail. Some of these people will use the trail for exercise – these 'back gate' users may not be significant in terms of expenditure, but they are significant in terms of numbers as they would use the trail many times each year. The survey responses indicated that the most frequent use for residents of the Wheatbelt specifically would be a few times/year. 23 respondents from the Wheatbelt said they would use the trail a few times/yr (38% of respondents from the Wheatbelt) while 10 (17%) said they would use it monthly and 6 said they would use it weekly (from a total of 60 respondents from the Wheatbelt).

10.2 Visitor Numbers

Unfortunately, shire-specific data on existing visitor numbers for each of the 5 shires (individually and collectively) is difficult to find. Visitation data drawn from the *Narrogin Tourism Strategy 2019* and the *Wheatbelt Region Overnight Visitor Fact Sheets 2024* reveals some interesting statistics for the Region:

- Total overnight visitation to the Wheatbelt grew from 755,000 in 2012 to 959,000 in 2024 (noting that the 2024 figure is a drop from previous highs; every year between 2019 and 2023 recorded over 1 million visitors).
- The vast majority of that tourism is domestic (between 94% and 96%). This share has dropped only a fraction since Covid-19 restrictions were lifted in 2022.
- Of the domestic overnight visitors, the 2012 and 2017 data showed that over 83% were from within Western Australia (no similar figure is available for the 2024 data). According to the *Concentric Circles* (2024) report, 95% of visitors to the Wheatbelt in 2020/21 were intrastate, although this was impacted by COVID for the period. However, pre-COVID 2016-2018 visitation averaged 89% for intrastate visitors.

10.3 Local Users

Tourism numbers are important. However, it is important not to overlook the contribution of local residents to the success of a trail. Every regional trail is a local trail. Therefore, it is important not to overlook the contribution of local residents to the success of a trail. In 2001, the Mundaring Shire trail network was used by over 200,000 people (*Jessop and Bruce* 2001), having grown from a low base when the network was first fully opened. Only 10% of these users were locals (residents of Mundaring Shire) with many other users drawn from the Perth metropolitan area. The total annual visits (people generally use trails more than once a year) were a staggering 2.454 million visits annually, with local residents accounting for 63% of these visits. The average number of trips per year per local resident was 75 (compared to the 5-20 trips used in the following forecasts). The local resident population across the 5 Local Governments is quite small (9,371 people).

10.4 Using the Survey Data

Whilst the survey provided only a limited number of responses from potential markets (a very small sample), some trends emerge that are helpful in predicting user numbers and patterns of use.

It should be noted that 65% of respondents said they would use both trails - the Green and the Orange; the remainder split their responses between the two routes. This preferred split makes it difficult to estimate the differing potential visitor numbers and returns from the two trails. The more critical elements then become the cost of the two routes. The Orange route is a very low cost route while the Green route is a very high cost route by comparison.

For Wheatbelt residents (the second largest number of respondees):

- The vast majority (70%) said they would use the trail either section by section or as a loop out of town (using one or both routes).
- The majority (37%) said they would use the trail a few times/year; 16% said they would use it monthly; 10% said their use would be weekly.

These figures are important when considering local use – this also points to the likely outcome that local residents will only use parts of the trail rather than the whole trail (though they might build up their "completion" of the trail over time). It can be assumed that local residents should not be considered amongst the visitor markets (although a day trip rather than a local trip may be involved in accessing sections of the trail).

For Perth Metropolitan residents (69% of respondees):

- A majority (53%) said they would use the trail either section by section or as a loop out of town (using one or both routes).
- 34% said they would use it as an end to end trail (either one way (20%) or return (14%)) – a significant time commitment.
- The majority (72%) said they would use the trail a few times/year; 17% said they would use it rarely (taken to mean 1/year or less frequently) and 11% said their use would be monthly.

These figures may indicate that a majority (53%) of Perth metropolitan may see the trail as an add-on to a trip they already are making (an important market explored below) – they may however do a number of sections over a year at different times. The 34% who said they would do the trail end to end can be assumed to treat this as a new trail and would come to the region to undertake this trail (again an important market explored below).

10.5 Predicting Visiting Trail User Numbers

There is no doubt from available evidence that recreation trails attract visitors who may come to a region specifically to do a trail. For example, in 2021, almost 50% of users on the Great Rides of New Zealand (a network of 22 ride/walk trails) came to the region in which the trail was located to walk or ride the trail – the other 50% used the trail as a secondary activity to their trip to the particular region (noting these 22 trails are spread over a number of regions in New Zealand) (*Angus and Associates* 2022).

Key markets for trails generally cover four major visitor groups:

- Day trippers;
- Turning day trippers into overnight visitors i.e. visitors extending their day trips to overnight trips to use a trail – an additional attraction in a town or region;

- Existing overnight visitors extending their stay by 1 day (or more) to use a trail; and
- Encouraging new visitors to the region specifically/primarily to use a trail.

What is a reasonable forecast for trail user numbers given some existing visitors will stay longer to experience the trail, and some will come to the region as new visitors simply to use the trail? In predicting potential user numbers, consideration needs to be given to the proximity and nature of major markets (as well as existing visitor numbers and the visitor numbers achieved on other trails).

10.5.1 Projected User Scenarios - Day Trip Usage

Any trail has the potential to add to the number of day trippers – usually a significant market for any trail (where such a day trip market already exists). Day trip usage of trails is often a critical factor depending on a trail's proximity to major markets. Recent data for the Lilydale Warburton Rail Trail (sourced from Yarra Ranges Council trail counters and published in *Warburton Mountain Bike Destination: Revised Economic Impact Assessment 2018*) estimated that the trail is used by between 80,000 and 120,00 people/year. Previous research (*Beeton* 2003) estimated day trippers are around 95% of trail users.

The Mundaring Shire trail network is just under 1 hour from the Perth CBD. In the Mundaring case, 180,000 visitors (from outside the Shire) make over 900,000 visits/year (an average of 5 visits/person). The majority of these visitors come from Greater Perth (a population of 1.5 million at that time) and are day-trippers. Some 12% of Perth residents visit the trail network.

Unfortunately, available data on day trips to the proposed trail's region (the 5 shires) is not available. In addition, given the distances from major potential markets (Perth, Albany, Mandurah are all between 120 and 250kms from a potential trail), it is unlikely that people in those markets venture as far as any of the 6 towns for a day trip. Data from the *WA Mountain Bike Strategy 2022-2032* indicates that 50% of mountain bike users travel between 30 and 60 minutes (an easy half-day to day trip) to access their regular mountain bike trails with distance from home being the second most popular reason for selecting a trail to ride; the location of the Beverley Narrogin Transport Trail is substantially more than this from major markets.

The day trip market for this trail is therefore considered to be negligible (whilst conceding that some day trippers may come from adjoining shires).

10.5.2 Projected User Scenarios - Converting Day Trips to Overnight Trips

Trail development may also turn day trippers into overnight trippers with consequent rise in economic benefits. The trail provides an additional activity for visitors – an overnight stay will give visitors time to walk or ride the trail (or part of the trail) in addition to their other activities. However, noting the above comments on the likely limited existing day trip market, this market is also considered to be negligible.

10.5.3 Projected User Scenarios - Encouraging Existing Overnight Visitors to Stay Longer

An additional recreational facility (i.e. this proposed trail) will encourage visitors to extend their stay to allow an extra day to use the trail. This is likely to be a key market for this trail particularly among the 'cruiser' market. As identified by the Project Working Group, those travelling in caravans may be a critical element of this particular market. The survey figures (noted above) may indicate that a majority (53%) of Perth metropolitan may see the trail as an add-on to a trip they already are making – they may however do a number of sections over a year at different times. These users are likely to be on the Green route – a market that consists of family groups is less likely to be attracted to the Orange route as it is an on-road touring trail.

Overnight stays in the region to use the trail would have a significant impact on economic benefits, as people who stay overnight spend considerably more than those who come for a day only. With such an outcome, the economic benefits estimated above would only be a small part of the overall economic benefit to the region.

If 3,000 visitors stay an extra day (during the year) to use sections of the Green route on the trail, this would inject an additional $762,600/year into the economy based on overnight visitor expenditure of $254.20/day. Additional expenditure as a result of their overnight stay – primarily but not only accommodation – can be attributed to the trail. There is no directly relevant data to check this forecast against. However, a figure of 3,000 users represents just over 1.6% of the (assumed) number of visitors (in 2019) to the Dryandra Woodland National Park (as detailed in the *Narrogin Tourism Strategy 2019*) visitors who it is reasonable to assume are already positively disposed to outdoor recreation activities. It also represents 0.3$ of overnight visitors to the Wheatbelt.

(Note: The *Pingelly MTB and Cycle Strategy 2022-2026* notes that the daily expenditure for visitors to the Wheatbelt for a day trip is $105/person and for an overnight visitor is $139/person. The average daily expenditure figures quoted above are substantially more than this and are drawn exclusively from trails research – it can be seen that trail users generally spend more than the average visitor most likely due to the specific demographics of trail users).

10.5.4 Projected User Scenarios - Attracting New Overnight Visitors

The proposed Beverley Narrogin Transport Trail is likely to attract a number of visitors who would come from a range of places which already yield the region's visitors solely or specifically to undertake the trail. 34% of the respondents who said they lived in the Perth Metropolitan area) said they would use the proposed trail as an end to end trail (either one way (20%) or return (14%)) thus representing a significant time commitment. These people can be assumed to treat this as a new trail and would come to the region specifically to undertake this trail.

If **2,000** visitors came specifically to use the trail (both routes) this would inject an additional **$1,016,800**/year into the economy based on overnight visitor expenditure of $254.20/day.

Additional expenditure as a result of their overnight stay – primarily but not only accommodation – can be attributed to the trail. There is no directly relevant data to check this forecast against. The Central West Cycle Trail (discussed in Section 9) provides some anecdotal evidence noting that an average of 10-20 people/day are on the route. If a midpoint is assumed (15) and the data is adjusted to allow for that the region can be very hot in summer to ride through (and also very cold in winter), an 8 month usable period yields over 4,000 users/year. Sydney, Newcastle, Wollongong and Canberra (likely major sources of users for the Central West Cycle Trail) have a significantly higher population than Perth, hence the lower number forecast by comparison.

Adaptive cyclists would make up a significant number of these potential users. Adaptive cyclists were identified in the *Brisbane Valley Rail Trail Strategic Plan* (2021) as cyclists who will cycle various distances but who focus on specific cycling experiences and local points of interest. Adaptive cyclists are prepared to travel to specific destinations seeking specific experiences.

All their expenditure (over 2 days as the assumption is that they will be overnight visitors) can be attributed to the trail; if there was no trail they would not come.

In summary, possible visitor numbers are shown in Table 20.

Table 20: Beverley Narrogin Transport Trail - Possible Visitor Numbers and Associated Expenditure: A Summary

Category	Predicted visitor numbers/year	Predicted expenditure/year
New day trippers	negligible	$0
Day trippers converting to overnight stays	negligible	$0
Overnight stays being extended by a day to use the rail	3,000	$762,600
Attracting new overnight visitors	2,000	$1,016,800
Total visitor numbers	**3,500**	**$1,779,400**

How do these figures compare to what is happening on other trails in Australia? Research figures are limited and tend to focus on iconic trails – the Bibbulmun Track (300,000/yr) and the Munda Biddi Trail (21,000/yr) in Western Australia, and the Great Ocean Walk (100,000/yr) and the Wilsons Promontory Walk (60,000/yr) in Victoria.

Other less iconic trails also provide available research (much of the data has not been reviewed since it was first published):

- The Tumbarumba Rosewood Rail Trail has attracted over 78,000 visitors since opening in April 2020, despite travel restrictions imposed by Covid-19 during much of the time it has been open. The last 2 years has seen use settle in around 10,000/year. This trail is in an area (west of the Snowy Mountains) highly regarded as an outdoor recreation area and offers a number of cycle and walk opportunities. It is also within 2 hours of Canberra – a city with a population very active in the outdoors.
- The recently opened Murwillumbah-Crabbes Creek section of the Northern Rivers Rail Trail in northern NSW attracted over 261,000 since opening in March 2023. This trail is within a day trip of the major markets of the Gold Coast and Brisbane.
- The western end of the Northern Rivers Rail Trail (a 14km section from Casino to Bentley) - while much further from the key markets - attracted over 43,000 visitors in its first 4 months of operation (March-June 2024). The trail has 3 counters on it; while the recorded number of over 43,000 does not necessarily translate to over 43,000 users (as many would pass more than one counter), it suggests significant user numbers.
- The Murray to the Mountain Rail Trail (Victoria) attracts almost 60,000 annual visitor days in 2010 (*SGS Economics and Planning* 2011).
- The Otago Central Rail Trail (NZ) offers a 3-day cycle or 5 day walk experience covering 150kms. In 2011, over 14,000 users traverse the entire length each year, with the most popular section attracting over 20,000 users. In 2015, almost 15,000 users rode the trail from end to end. Cyclists undertaking the complete journey often do so in 3 days, while walkers take 5 days. A number of tour operators offer a "guided" service for cyclists in particular, allowing users to spend all day riding between accommodation options carrying only what they need for a day and their gear is transported from accommodation place to accommodation place (*Central Otago District Council* 2011 and 2015).
- Data from July 2022 for South Australia's Riesling Trail (a 34km rail trail in the Clare Valley) show use numbers of around 3,200/month (*Rail Trail Connections Spring 2022*) – a figure consistent for over 10 years. This trail is 2hrs from Adelaide in the renowned tourist area of the Clare Valley (with very limited local population).

There may be additional people who use the trail as part of their visit to the region. While they add to the total number of trail users, their expenditure cannot be counted in any economic analysis of the trail's benefit as the presence of the trail is not the primary attraction for these visitors. As noted above, almost 50% of users on the Great Rides of New Zealand (a network of 22 ride/walk trails) came to the region in which the trail was located to walk or ride the trail – the other 50% used the trail as a secondary activity to their trip to the particular region (noting these 22 trails are spread over a number of regions in New Zealand (*Angus and Associates* 2022). The economic contribution of the latter 50% is not counted as an economic benefit of the trail.

The predicted user numbers represent a likely outcome once the proposed Beverley Narrogin Transport Trail is established. As noted above, marketing and promotion of the trail will be a key element in realising these numbers – users just don't magically appear once a trail is built. Such marketing and promotion require the commitment of resources – human and financial.

10.6 Predicting Local Trail Users

As noted above, every regional trail is a local trail. It is difficult to know how far people will travel to take advantage of a local recreation facility. For the purposes of these forecasts, 20 minutes is considered a local trip whereas trips over 20 minutes are considered day visitors. Individual settlement data for the shires is difficult to find so some assumptions need to be made. The combined populations across the 5 Local Governments (in 2021) were 9,371. The Shire of Beverley was home to 1,694 people; no data is available at a higher level of resolution (such as the town of Beverley). The Shire of Brookton was home to 929 people with 532 living in the urban area. The Shire of Pingelly was home to 1,067 people with 722 living in the urban area. The Shire of Cuballing was home to 902 people with 592 living in the urban area (Cuballing and Popanyinning). The Shire of Narrogin was home to 4,779 people with 3,745 living in the urban area. If it is assumed that these "town residents" (i.e. those living in the urban areas) are within 20 minutes of the Green route, this means 7,285 people are potential local users (based on 2021 Census data).

There are likely to be more but the population of very small settlements is not easily discovered.

10.6.1 Local Trail Users – Predicting User Numbers

Three possible scenarios can be used in calculating likely local user numbers. These are:

- A low/low scenario - 5% of the combined population within 20 minutes of the trail making 5 visits/year to the trail.
- A medium/medium scenario - 10% of the combined population making 10 visits/year to the trail.
- A high/high scenario - 20% of the combined population making 20 visits/year to the trail.

The next step is to estimate total trip numbers. In the Mundaring study, the average number of trips per year per local resident was 75. Table 21 provides three visitation scenarios taking a far more conservative approach compared to the actual visitation rate coming from the Mundaring study.

Table 21: Beverley Narrogin Transport Trail Potential Annual Visits by residents

(Population within close proximity to the trail – 7,285)

Category	Low trail usage: 5% of residents	Medium trail usage: 10% of residents	High trail usage: 20% of residents
Low (5 visits/yr)	1,820	3,640	7,285
Medium (10 visits/yr)	3,640	7,285	14,570
High (20 visits/yr)	7,285	14,570	29,140

Local users also spend money while using trails. Expenditure per trip by local residents is always lower than for visitors, as locals are closer to home and more likely to either take all that they need or come home to eat and drink following a trail visit. The expenditure figures from the Mundaring study ($1.44/person/trip in the Shire – mainly food and drink) are a legitimate base to work from (and have been converted to 2024 dollars - $2.67/person/trip).

Using this figure in combination with visitation scenarios generated in Table 21 gives a range of expenditure estimates. Table 22 shows a simplified set of three scenarios: low usage / low number of trips, medium usage / medium number of trips, and high usage / high number of trips.

Table 22: Potential Total annual expenditure in the vicinity of the trail by residents

(low, medium and high refer to the use rates developed in Table 21 above)

User scenario	# of person visits	Total spent ($)
Low/low	1,820	$4,860
Medium/medium	7,285	$19,450
High/high	29,140	$77,805

What is the likely scenario for local trail users? The Mundaring figures show 63% of the local population making an average of 75 trips/year.

23 respondents from the Wheatbelt said they would use the trail a few times/yr (38% of respondents from the Wheatbelt) while 10 (17%) said they would use it monthly and 6 said they would use it weekly (from a total of 60 respondents from the Wheatbelt).

Given these figures and the response from the survey (66% of Wheatbelt residents indicated likely use ranging from weekly to a few times/year), it would seem the medium/medium scenario of **7,285 person visits/year** (i.e. 10% of the 'local' population using the trail for 10 visits per year) is a reasonable scenario to adopt (conservative when compared with the Mundaring data). Such visitor numbers would inject **$19,450/year** into the local economy. Due to the relatively small local populations, direct economic benefits flowing from local trail use will be relatively low.

10.6.2 Local Trail Users – How Long Will They Spend on a Trail

The evidence is that most trail users spend up to 4 hours on a trail (walking or cycling). However, local people using the trail as part of an exercise regime are likely to have different time use patterns. The most recent national Exercise, Recreation and Sport Survey (*Australian Government, Australian Sports Commission: Participation in Exercise, Recreation and Sport Annual Report 2010*) shows that those who regularly exercise do so for between 2 and 5 hours/week and the median number of exercise "events" was 1.6 times/week. It is reasonable to assume (for the purposes of calculating potential hours of exercise on the trail) that each use will be for 1 hour.

Using this assumption and combining it with the forecast user numbers, it is likely that there will be 7,285 additional hours of additional physical activity in the local communities who can access the Beverley Narrogin Transport Trail.

10.7 Projected User Scenarios - Summary

With good marketing, the trail will attract local users and visitors. Under a relatively conservative scenario, the following outcomes are achievable.

- Local use – 7,285 local users/year is a reasonable expectation based on the survey results. This will result in an economic injection of $19,450/year;
- If 3,000 visitors stay an extra day to use the trail (or part of the trail), an additional $762,600/year would be injected into the regional economy.
- If 2,000 new visitors come to the region solely (or primarily) to do the trail, an additional $1,016,800/year would be injected into the regional economy.

The total injection of dollars into the local economies from local, day trip and overnight visitors may be of the order of **$1,798,850/year** (under a range of conservative scenarios) from **12,645 users**.

It should be emphasised that user and visitor numbers will not necessarily be realised in the first years of operation if the trail proceeds. It also should be noted that these numbers may grow as the overall visitor and resident population numbers grow.

10.8 Other Opportunities

A market that has been emerging for some time involves "packaging up" a number of trails. This is a growing area of trails marketing, where regions are looking to have either a longer trail (a trail that can be traversed in 2-3 days such as the Otago Central Rail Trail in New Zealand) or a cluster of shorter trails that make an overnight or longer visit to a region very attractive (North Eastern Victoria is doing this very well focussing on the Murray to the Mountains Rail Trail but including a range of other cycling opportunities).

Good marketing of such a package would mean that overnight stays in the region would increase accordingly. This has a significant impact on economic benefits, as people who stay overnight spend considerably more than those who come for a day only. While a trail of the length proposed for the Beverley Narrogin Transport Trail will attract people in its own right, "packaging" it with the proposed Narrogin Williams Rail Trail (for which detailed planning has been carried out) and the Collie Darkin Rail Trail (61kms – with a start some 80kms from Williams) is likely to increase user numbers on all three trails (no user numbers are available for the existing Collie Darkan Rail Trail).

Any such developments (and any other trail developments proposed) would make the Beverley Narrogin Transport Trail an attractive part of a trails package. If - as the CEO of Pingelly Shire has promoted - a continuous loop trail connecting Perth and Bunbury can be developed, the Beverley Narrogin Transport Trail would be a much smaller part of a much longer trail – one that could attract large numbers of users.

10.9 Business Benefits

The completion of a trail would not simply provide an injection of funds to stabilise and grow existing and new businesses. The psychological impact on businesses can also be very important. Work done for the Riesling Trail included some qualitative research using focus groups consisting of business operators (*Market Equity* 2004). The key responses included:

- A belief amongst business providers that the trail contributes to economic activity in the region.
- The trail is seen to attract a variety of visitor types to the region, with wine as well as non-wine interests.
- The trail is seen as highly important to businesses in the area. Businesses were passionate about the trail and believed it contributed to their businesses as well as helping to position the area as an authentic leisure holiday destination. The exact impact in measurable terms could not be clearly ascertained, as it is so intrinsically linked to businesses in the region, but there was a definite opinion that the Clare Valley would not be the same without the trail and that it had contributed to business formation as well as business growth.

In a 2021 New Zealand survey (*Angus and Associates* 2022), 66% of existing businesses (i.e. those that existed before a trail which was on the network of 22 Great Rides opened) had expanded/added new services solely or partly because of the trail.

Trail development offers a range of new business opportunities and the opportunity for existing businesses to extend their offerings. The experience of the Tumbarumba and Rosewood communities reinforces this (as discussed in the *Rail Trails for NSW Evaluation Summary*).

It should also be noted that the trail construction process itself will provide an economic input to the region.

10.10 Non-economic Benefits

There are a range of non-economic benefits accruing to local and wider communities from trail construction and use. The Department of Local Government, Sport and Cultural Industries' *More People More Active Outdoors* (2019) identified five key pillars supporting the benefits of outdoor recreation (cited in *WA Mountain Bike Strategy 2022-2032*). These were:

- Personal development, challenge and enjoyment;
- improved health and well-being;
- outdoor learning;
- connection to nature; and
- economic development.

10.10.1. Health Related Economic Benefits to the Wider Economy

- Data from the USA indicates that every $1 of funds spent on recreational trails yield direct medical benefits of $2.94 (*Wang et al* 2005).
- The 2021 evaluation of the Great Rides of New Zealand showed an associated $11.1 million in health benefits (from user numbers in excess of 1.065 million people) (*Angus and Associates* 2022).
- The trail will encourage people to exercise – the economic benefit to society of getting an inactive person to walk or cycle is between $5,000 and $7,000/year. The economic benefit to society of getting an active person to walk or cycle is between $850 and $2,550/year (*Institute of Transport Economics* 2002).
- Participation in trail activities can improve physical and mental health, assisting with disease prevention particularly cardiovascular, musculoskeletal, respiratory, nervous and endocrine systems as well as reducing obesity, hypertension, depression and anxiety. The obesity epidemic alone is now estimated to cost Australia $1.3 billion/year (*Australian Bicycle Council*). One heart attack is estimated to cost in the vicinity of $400,000 in direct and indirect costs.

10.10.2 Quantifiable Benefits to Individual Residents

There are numerous benefits that accrue to residents of the region from a trail development over and above those that accrue to the regional economy (and therefore a select number of people) and to the wider economy (health benefits in particular).

- Medical research has shown that 1 hour of moderate exercise can add more than 1 extra hour of high-quality life to an individual.
- Cycling and walking as recreation activities can be cheaper than alternative forms of exercise such as gym classes and can provide an opportunity for exercise in towns and villages where there are no indoor gym options.

10.10.3 Non-quantifiable Benefits to the Community and to Individuals

There are a number of unquantifiable benefits to individuals and the community. These are listed here so that a complete picture of benefits can be considered when weighed up against project costs. It is difficult to cost them for a range of reasons.

10.10.3.1 Health and Wellbeing

Trails are an accessible form of recreation. Trail-based recreation is generally free, self directed and available to all people, all day, every day. Good quality, accessible trails encourage physical activity and improved health. Increasing recreational options for local communities will aid overall community wellbeing.

Physical activity has also been shown to improve mental health and help relieve stress. The economic cost of mental illness is high in Australia - estimated to be approximately $20 billion per year.

People can use trails in a variety of ways, depending on their abilities and preferences. Physical health benefits are discussed above. Social health benefits include:

- Trail activities facilitate participation and social interaction between a diversity of community members, age groups, individuals and families e.g. community walking groups, voluntary trail maintenance and conservation work;
- *Market Equity* (2004), in its report on trails in South Australia, found that using trails to get a sense of well-being (95% of survey respondents) and using trails as a means to unwind and relax (91% of

respondents) were the two main drivers getting people out on recreation trails. The psychological health benefits of trails remain under-estimated;

- The 2021 evaluation of the Great Rides of New Zealand showed that 56% of users felt that their wellbeing or mental health had improved, 47% said their physical health had improved and 44% said they had developed closer relationships with the people they were with (Angus and Associates 2022);
- Trails can offer a wide range of opportunities to a diverse group of people. Depending upon design, trails can accommodate the elderly, people with disabilities or satisfy those seeking challenging adventures and a sense of achievement;
- Participation in trail activities has a relatively low cost to participants;
- Trails can introduce participants to other recreational and participation offerings in the community; and
- Trails help to connect people and places and to develop community pride.

"Green scripts" are emerging a new frontier in preventative medicine (https://www.canberratimes.com.au/story/6192225/canberra-doctors-could-prescribe-patients-timeoutside/). The ACT Government worked with the medical profession to determine the outcomes of a doctor "ordering" a patient to spend time outdoors with an ACT park ranger. So-called "Green scripts" could be a new way to treat heart disease, high blood pressure, obesity and mental health issues. A representative of the ACT Government is quoted as saying that Green scripts had been a hit in New Zealand. He also noted that, in the United States, the Golden Gate National Parks Conservancy in San Francisco had been running its similar "Park Rx" program for 10 years. The UK Government announced a similar scheme in August 2022 The Bicycle Network reported that a health trial in the UK is exploring how doctors' prescriptions for patients to bike ride their way to improved mental and physical health could change lives and communities. The initiative was put in place as a way of improving public health through "social prescriptions" for walking and bike riding. This vision was outlined in its *2020 Gear Change* report, which laid out plans to promote riding and walking across the country with "our bike lanes becoming huge, 24-hour gyms, free and open to everyone". Initially, the focus will be on areas with poor health and low physical activity. Among the key objectives is to incentivise GPs to prescribe bike riding, noting that "taking up cycling is among the most effective health interventions a person can make".
(https://bicyclenetwork.com.au/newsroom/2023/07/11/uk-introduces-bike-ridingprescriptions-for-good-health).

Recent research published in the *Health and Place Journal* (reported in *Australasian Leisure Management* in July 2025) found that 97% of allied health professionals believe that outdoor environments can help prevent and manage a wide range of physical, mental and social health conditions. The article quoted lead researcher Dr Jessica Stanhope as saying that "through activities such as walking people are doing everyday skills, building their confidence, capacity and social connection."
(https://www.ausleisure.com.au/news/new-researchspotlights-need-for-nature-based-therapy-to-be-embedded-into-routine-health-care)

10.10.3.2 Liveability

Quality recreational facilities, such as trail networks, can help create attractive places to live and visit – important in small regional communities looking to grow (or at least stabilise). Almost half of the representatives of business groups who responded to the New Zealand survey mentioned above (A*ngus and Associates* 2022) believed that the development and promotion of a trail in their area attracted new people to live in that area. The same report showed that 62% of respondents from these business groups felt that the trail had attracted people to do business with and/or invest in the area of the trail.

Walking and cycling are relatively cheap modes of transport. Trails also provide a low impact means of travelling through the landscapes and play an important role in connecting people with nature.

Local users of the trail will enjoy social interaction within the community and with greater social interaction, the social capital of the area may be boosted. There are a number of benefits of enhanced social capital. It improves the capacity for people to trust others (ABS 2012 cited in *SGS 2013*). This strengthens the social cohesion in a community as it provides the opportunity for socially isolated individuals to integrate into the community. Greater social capital also facilitates networking, thus creating more efficient economic networks.

Trail projects help build partnerships among private companies, landowners, and local government. Each trail contains elements of local character and regional influence, and reflects the hard work, enthusiasm, and commitment of individuals, organisations and elected officials. In addition, when residents are encouraged to become involved in a trail project, they feel more connected to the community (Warren 1998 cited in *SGS 2013*).

Above left and right: volunteers plant trees along the Tumbarumba Rosewood Rail Trail corridor in southern NSW. (Source: Tumbarumba to Rosewood Rail Trail Facebook page).

10.10.3.3 Education

Trails present a unique opportunity for education. People of all ages can learn more about nature, culture or history along trails. Of particular importance, trails provide firsthand experience that educate users about the importance of the natural environment and respect for nature by leading users into a natural classroom.

Enhanced, active education along trails is achieved using comprehensive trail guides and signage to encourage awareness of the natural, cultural and historical attributes of the trail.

Trails have the power to connect users to their heritage by preserving historic places and by providing access to them. They can give people a sense of place and an understanding of the enormity of past events.

10.10.3.4 Environmental and Cultural Benefits

Trails provide a number of environmental and cultural benefits. These include:

- Opportunities for the community to experience natural and cultural environments;
- Protection of the adjacent environments by localising impacts and facilitating management of visitation effects;
- Educational and interpretive opportunities and increased environmental and cultural awareness and appreciation;
- Increased community ownership which helps to preserve natural and cultural values;
- Corridor revegetation opportunities; and
- Opportunities for community participation in conservation and revegetation work.

SECTION 11: FEASIBILITY STATEMENT

The proposed Beverley Narrogin Transport Trail is technically feasible. There are a number of issues that can be overcome with good design.

In order to establish whether the proposed trail is a feasible proposition, this Feasibility Study sought to answer several questions:

Is there a viable trail route?

Yes. The Orange route will use a network of scenic country roads – a combination of gravel (mostly) and sealed roads. The roads currently exist and the only work required is the placement of directional signs at intersections. The Green trail as proposed will need to be constructed primarily on land that is currently road reserve under the control of Local Governments. In some (limited) sections, the existing railway maintenance track may be able to be used as it has been developed on road reserve – this will require discussions with Arc Infrastructure. Using land within the Great Southern Highway road reserve will also be required in some locations. Consequently, new trail will need to be constructed for over 81kms of the proposed Green trail's route.

Will the trail provide a quality user experience? (Terrain/landscape/history)

Yes - though the quality of landscapes on offer will differ. The Orange route offers varied vistas (in both the near and far visual field) offering trail users "up close and personal" interactions with rural activities – canola, sheep, wheat, olives – all the rural experiences the Wheatbelt has to offer. Long views to distant hills are attainable along sections of the roads, while also on offer is the opportunity to ride through Dryandra Woodland National Park on a constructed road. The Green route (running primarily along the Great Southern Highway and the railway) offers less attractive scenery although there are sections that will be quite attractive. The northern section (Beverley to Brookton) offers riverside walking and riding for much of its route and along scenic country roads into Brookton. Good trail design along other sections may leave a band of trees between the trail and the less aesthetically pleasing aspects of the trail route.

Is there a market for the proposed trail?

Yes. The existing visitor market primarily consists of overnight trips. The survey indicated a level of demand for the trail from residents of the Wheatbelt (who would primarily use the Green route in sections or loops). Visitors from the Perth metropolitan area will either also use the trail in sections or as loops (it is expected that these users will be drawn primarily from the 'cruiser' market) or undertake the trail from end to end (and return in many case) using a combination of the Orange and Green routes.

Will the trail create any unmanageable or unmitigated impacts on adjoining landholders' farming practices and lifestyles?

No. The Orange route is on existing public roads. Despite claims made during the consultation process, the use of this route does not create new issues (it is acknowledged that it may increase some existing issues given the promotion and use of the route). The Orange route has been amended from that promoted

during consultation to take into account expressed concerns about heavy vehicle traffic on some sections – there is however no on-road alternative to Bremner Road south from Beverley (in time, the Green route from Beverley trailhead to Kokeby East Road may become the preferred route for all cyclists). On the Green route, the section between Beverley and Kokeby East Road is the only major section of the trail passing adjacent to farmland that is not adjacent to a public road. There are also relatively short sections of the trail (immediately north of Brookton and immediately north of Cuballing) where the trail is recommended to be built on road reserve which passes through private property. Landholders may raise issues (this route was not canvassed in the Open Houses or during the on-line survey period) but the issues and concerns likely to be raised by adjoining landholders have been satisfactorily addressed in the other trails around Australia. Evidence shows no long-term negative impacts on farming practices and lifestyles. In consultation, adjoining landholders raised some concerns. It is believed that these issues can be satisfactorily addressed, managed or mitigated if the trail proceeds. It is important to recognise landholder concerns and, if the trail proceeds, to work closely with them to address individual concerns and arrive at mutually agreed solutions. In some other sections, landholders have been cropping the road reserve. Trail development will necessitate the re-calibration of the existing road boundaries – these landholders may be required to forego using the road reserve.

Is the local government and key stakeholders supportive of the concept?

The five Local Governments contributed to the study (and the study process through the Project Working Group). Councillors who attended the Open Houses (held during August 2025) expressed support for the project – this is only informal support. The completion of the Feasibility Study will provide a milestone which will allow the Councils to more fully understand the project and formally support it if that is their position.

Are there supportive/strong advocates in the community?

No strong advocate or advocate groups came forward during the consultation. Cycling groups in Narrogin did express support in consultations.

Is there a supportive community?

Yes. The survey showed strong support for the project across the respondees. All those who attended the five Open Houses expressed support for the project. One formal submission opposing elements of the project was received during consultation (and there were some negative comments that returned with the survey).

Would the trail be value for money?

This cannot be answered definitively. Trails repeatedly demonstrate that there are numerous benefits to be gained through their construction: economic benefits to the towns where they start and finish – a boost to businesses associated with the trail; social and physical health benefits; and a range of environmental and cultural benefits. This proposed trail is a relatively high cost trail (primarily due to the distance and some of the difficult issues encountered). Use scenarios and possible numbers of users means that, for an investment of just over $9 million, there will be an opportunity for users to traverse a trail offering two routes and loops around each of the main towns and villages of the region. In summary, it can be reliably anticipated that development of the proposed trail will result in increased annual visitor numbers of 5,000 who will inject $1.779 million/year into the region's economy. Local use rates of 7,285 people/year will see the injection of $19,450 into the region's economy. There will also be several non-quantifiable benefits also arising to members of the communities around the trail as well as further afield.

Is there a commitment to maintenance? ("friends of ..." group or support network)

This has not been explored. The experience of other trails indicates that individuals and community groups (such as Landcare groups, school groups, service clubs, etc.) will help to maintain sections of the trail, or areas through which the trail would pass.

Will the trail provide a unique experience?

Yes. There are limited long distance trails in the Wheatbelt and limited cycle touring routes. Some of the towns through which the trail passes offer (and propose) shorter walk and cycle trails. However, it should be borne in mind by the proponents that this trail is not a Bibbulmun Track or Munda Biddi Trail offering a long distance trail through areas of magnificent scenery. Building it as a "Transport Trail" allowing side by side riding (similar to a rail trail) will offer some differentiation to other trails. If – as the Chief Executive Officer of the Shire of Pingelly is advocating – the trail becomes part of a much longer trail connecting Perth to Bunbury, this section will be a small (but important) part of that long distance trail.

Is there a demonstrated benefit to trail users and, especially, the host communities?

Yes. This question has been answered partially in answers to other questions posed. The demonstrated benefits come in the form of economic and non-economic benefits that will accrue to both users and host communities (with the creation of a range of economic opportunities arising from the development of the trail).

Although maintenance tracks run parallel with the railway, new trail will need to be constructed in adjacent, vegetated road reserve.

SECTION 12: TRAIL MAINTENANCE

Ongoing trail maintenance is a crucial component of an effective management program – yet it is often neglected until too late. It is therefore essential that funds be set aside in yearly budgets for maintenance of this trail (if it proceeds) - to ensure user safety and enjoyment, and to minimise liability risks for land managers.

It would be short sighted to go ahead and build a trail and then baulk at the demands of managing and maintaining it. If the trail manager is not committed to maintaining the trail once built, the trail should not proceed.

The following discussion primarily focusses on the Green trail. The Orange trail needs limited maintenance as it is on shire roads which will be managed under another maintenance program for each shire. The only consideration is the maintenance of directional signage; these should be treated the same as the signage maintenance task for the Green trail (as outlined in Table 21).

12.1 A Trail Maintenance Plan

Ongoing maintenance costs can be minimised by building a trail well in the first place. A well constructed trail surface will last considerably longer than a poorly built trail. Signs, gates and posts installed in substantial footings stand less risk of being stolen or damaged. Trail furniture (such as seats, trail directional marker posts and interpretation) should be installed (during the construction/upgrading process) in substantial footings sufficient to withstand high winds and theft. These should require minimal ongoing maintenance.

Building good trails in the first place is the very best way of minimising future problems and costs. As a second line of defence, a clear and concise Management Plan with a regular maintenance program written into it will aid significantly in managing ongoing resource demands.

The goals of a Trail Maintenance Plan are to:

- Ensure that trail users continue to experience safe and enjoyable conditions;
- Guard against the deterioration of trail infrastructure, thereby maintaining the investment made on behalf of the community;
- Minimise the trail manager's exposure to potential public liability claims arising from incidents which may occur along the trail; and
- Set in place a management process to cover most foreseeable risks.

Most minor repairs are largely labour intensive rather than capital expensive. Calamitous events such as fire or flood will naturally generate significant rebuilding activity and consequent costs. These events are generally unmanageable and should simply be accepted as part of the longer-term reality of trail management.

Resourcing a maintenance program is crucial, and funds will be required on an ongoing basis to enable this essential maintenance. This matter should be addressed in the preparation of the maintenance plan.

12.2 Public Liability and Risk Management

It is prudent that the trail manager is aware that – whether or not visitors are actively encouraged to come to the trail – they carry a significant duty of care towards those visitors accessing the trail. The maintenance of a quality trail is therefore critical from this perspective. Legislative changes across Australia have reduced the number of small claims against land managers. However, liability generally rests with the land managers and hence, every attempt should be made to minimise the risk of accident or injury to trail users (and therefore the risk of legal action).

While public liability is certainly an issue for all land managers, it is not a reason to turn away from providing safe, sustainable and enjoyable resources. It is simply a mechanism by which to recognise the responsibilities inherent in managing natural and built resources. Dealing with a perceived liability threat is not about totally removing that threat – it is about doing all that is manifestly possible to provide safe access opportunities for visitors, thereby minimising the risk of liability claims.

A formal Hazard Inspection process is crucial in the ongoing maintenance plan. Not only will this define maintenance required and/or management decisions to be addressed, but it is also vital in ensuring safe conditions and therefore in dealing with any liability claim which may arise in the future. Courts are strongly swayed by evidence of a clear and functional program, and a regular series of reports, with follow-up actions, will go a long way to mitigating responsibility for injuries. Further, clearly defined 'User Responsibility' statements in brochures, maps, policy documents, plans and public places will assist this process.

12.3 Trail Maintenance Activities

The discussion that follows provides general guidance for the development of a maintenance plan should the trail proceed. It is not a substitute for a specific maintenance plan for the trail. An inventory of works and locations needs to be prepared for maintenance purposes – this cannot be prepared until construction is completed. The trail manager will need to create a specific checklist based on this example once the trail is completed.

Maintenance on the trail should be divided between regular inspections and simple repairs, a one (or two) person job, and quarterly programs undertaking larger jobs such as significant signage repairs or weed / vegetation control. A range of basic machinery, tools and equipment will be required for this work. At the core of any trail maintenance program is an inspection program. The relevant Australian Standards sets out the basis for frequency of trail inspections. It only covers walking tracks and provides for inspections every 30 days (or less) for Class 1 trails, every 90 days for Class 2 trails, and annually for Class 3-6 trails. This sets the minimum standard for inspections and is a guide only. What the Australian Standards do not include but should include is an inspection of any trail after significant weather events such as storms, fire, floods, and high winds in addition to the regular inspection program. The trail should have its own maintenance plan that may, for particular reasons, have more frequent inspections. Particular needs should be recognised in an individual trail maintenance plan.

Clear records of each activity/inspection will be kept by the body with responsibility for maintenance. Pro-formas serve to maximise user safety and minimise liability risks. It will also provide a valuable record of works undertaken and make for efficient use of maintenance resources over time.

In general, Maintenance Plans are based around regular inspections, at which time simple maintenance activities should take place concurrently (Table 23 provides a broad outline of activities). More time-consuming maintenance activities should take place every six months, while detailed Hazard Inspections should occur annually. Further, the capacity to respond immediately to random incoming reports of hazards or major infrastructure failures should be built into the Plans.

One of the most frequent maintenance tasks will be attending to fallen branches and limbs (particularly after storms), repairing trail surfaces, replacing stolen or damaged signs (including road signs), clearing under bridges and ensuring gates and fences are functioning as intended.

Table 23: Maintenance Schedule

Activity	Activity Description	Site	Frequency
Undertake full inspection of the trail.	**At Trailheads:** The trailhead should be carefully checked to ensure that all signage is present, and that all signs are clearly visible and legible. An inventory needs to be prepared to assist in regular maintenance. Surface of access tracks and parking areas need to be checked and potholes eliminated. Inspect and check trailhead facilities and infrastructure: • Parking areas and access tracks (check surfaces) • Trailhead (map) panel • Interpretive panel • Seating/shelter/picnic tables • Trailhead signage (on road) • Trail directional marker posts. **At Road Crossings:** Particular attention needs to be given to signs at road crossings or junctions. Each crossing should be carefully checked to ensure that all signage is present, and that all signs are clearly visible. Particular attention must be given to ensuring that "Trail Crossing ahead" signs (on roadside at approach to trail crossing) are not obscured by overhanging vegetation. Replace damaged and/or missing signs.	Entire trail.	Every third month.

Activity	Activity Description	Site	Frequency
Check signage and clean, replace or repair as required esp. road crossing signage and directional markers. All signage should be checked for vandalism and cleaned if necessary. If damage is too great, replacement is essential. An inventory of locations of all signs needs to be prepared to assist in regular maintenance.	Check, repair or replace all trail signage, including trail distance and directional markers (logo/arrow plates). Replace missing and/or damaged signs. *(This applies to both Green and Orange routes).*	All locations.	Every third month - at each trail inspection.
Slashing of trail environs.		Various locations.	Timing dependent on seasonal growth patterns. Allowance for up to 4 times per year.
Check trail surface and arrange repair as required.		Entire trail.	Every third month. Arrange repairs immediately if acute or schedule maintenance for six monthly work sessions if not.
Maintenance of trail surface.	Check condition of trail surface for damage and arrange repairs if necessary; trim off regrowth vegetation.	Entire trail.	Every six months.
Sweep or rake debris from trail surfaces, especially at road crossing points.		Various locations.	Every six months.

Activity	Activity Description	Site	Frequency
Maintenance of drainage measures.	Check and clear drains and culverts. Drains need to be checked and cleared once or twice/year and after heavy rainfall events. Regular maintenance especially after heavy rainfall is essential. Most maintenance will involve clearing of material from silted up or blocked drains. Drain blockages should be cleared as urgent priority. Silt traps at culvert discharges or entry points should be cleared regularly.	Entire trail.	Every six months.
Cut back regrowth, intruding and overhanging vegetation.	Check overhanging or intruding vegetation. Cut back where required. Clear fallen trees and branches. Undergrowth vegetation grows quickly, and over time will continue to intrude into the trail 'corridor'. Such intruding vegetation needs to be cut back to provide clear and safe passage for trail users. "Blow-downs" - trees or limbs that have fallen across the trail – need to be cleared as/when required. Sight lines must be kept clear either side of road crossings, to ensure that users can clearly see a safe distance either way at road crossings.	Entire trail.	Every six months, unless obviously requiring attention at regular inspections.
Check structural stability of interpretive signage, and interpretive shelters. Check structural stability of seating, distance posts. Inspect and replace when needed.	Interpretive panels should be checked for vandalism and cleaned if necessary. If damage is too great, replacement is essential. An inventory of locations needs to be prepared to assist in regular maintenance. Furniture alongside trails, if installed, needs to be checked regularly for damage to ensure safety and comfort of trail users.	Entire trail.	Every six months.
Check structural integrity of bridges and boardwalks.	Visual inspection is appropriate though detailed inspection should follow storm and flood events.	Various locations.	Annually.

Activity	Activity Description	Site	Frequency
Inspect and maintain bridges and boardwalks. Check for obstructions and clearing under bridges and boardwalks.	After floods, bridges and boardwalks should be inspected, and damaged components replaced as soon as possible. Handrails and surface decking on bridges and boardwalks should be inspected for damage at regular intervals.		
Undertake Hazard Inspection and prepare Hazard Inspection Report.	This should be done annually. Inclusion of a formal Hazard Inspection process, crucial in addressing risk, is necessary in the ongoing maintenance plan. Not only will this define maintenance required and/or management decisions to be addressed, but it is also vital in ensuring safe conditions and therefore in dealing with any liability claim which may arise in the future.	Entire trail.	Annually.

It should be noted that this schedule does not allow for repair works above and beyond 'normal' minor activities. For example, if a section is subject to heavy rain, and erosion control fails, additional repair works will need to be undertaken.

12.4 Maintenance Costs

12.4.1 General Notes

Estimating the cost of maintaining a trail is difficult due to the unpredictability of events such as floods, fires, high winds and stormwater runoff, as well as the tenure and management arrangements for the trail. Deliberate and wilful damage and vandalism can also contribute significantly to the need for ongoing maintenance and replacement of infrastructure. Volunteers can be organised (through a coordinated program) to carry out much of the work at a limited cost to the trail manager.

Evidence of actual trail maintenance costs for individual items along a trail is scarce. Much of the published research focusses on rail trails; the findings are still valid. The Rail to Trails Conservancy in the USA (*Rail-Trail Maintenance and Operation – Ensuring the Future of Your Trails – A Survey of 100 Rail-Trails*, July 2005) provides two general answers for why it is difficult to estimate maintenance costs. First, the trail may be part of a larger budget for a single park or even an entire parks and recreation department. Specific costs for the trail are not separated out. Second, small trail groups, though run by competent and extremely dedicated volunteers, tend to be 'seat-of-the-pants' operations. Maintenance is done "as needed," funds are raised "as needed," and the people are volunteering because they love the trail, not because they love doing administrative tasks like budgeting.

Maintenance responsibility does appear to significantly affect cost. Approximately 60% of the surveyed trails reporting costs were maintained primarily by a government agency, implying paid staff and/or contractors. The other 40% of trails were primarily maintained by a non-profit or volunteer organisation. Adjusting for exchange rates and inflation since 2005, annual costs for government-run trails were just

over $2,465/km. This is not much more than the overall average of $1,855/km, but it nearly triples the average for volunteer-run trails of $868/km.

In Victoria, the Murrindindi Shire Council manages and maintains approximately 85% of the (134km) Great Victorian Rail Trail. It spends around $2,000/km on maintenance activities each year which the trail manager believes is insufficient. Anecdotal information indicates that initial construction issues have necessitated an increased level of maintenance of the trail surface (and drainage through cuttings). A higher level of (initial) construction quality (i.e. better trail surfacing) would mean less ongoing maintenance.

A 2016 study of the Great Rides of New Zealand (The *Great Rides of the New Zealand Cycle Trails* 2016) examined the 22 "great bike rides" of New Zealand and reported an average maintenance cost of $1,285 per kilometre (adjusted for exchange rates and inflation). This figure is based on the actual reports of 9 of the 22 trails. It is difficult to know precisely what items have been included in these figures as the 9 individual trail reports are not available.

There are significant variations across the available research costs and it is not clear from available data what has been included and what has not been included in consideration of costs. There are two issues when considering the quoted costs and what has been included and not included.

- The "age" of the trail. Early life maintenance costs tend to be very limited. Very little maintenance beyond slashing and minor repairs are needed in the first few years. Whist there is appeal in setting aside the minimal amount for maintenance in the first 5 years, a more appropriate approach would be to set aside higher amounts from trail inception. The likely maintenance costs in the first few years of a trail's life will focus on sign damage and inspections. These "day to day" costs can and should be funded by the trail manager (using their own resources including volunteers).
- The more critical element is the treatment of replacement of major assets over time. It is highly likely that the available figures from the research do not provide for how replacement of major capital items is considered. The biggest "maintenance costs" are maintenance and replacement of the items that initially cost the most to install – surfacing and bridges and boardwalks. Maintenance on these three critical elements is less likely to be needed in the first 5-10 years if the trail is built well in the first place. Allowance for repair and replacement of these items should be treated differently. Little maintenance will be required on newly built trail surfaces, bridges and boardwalk structures, and other elements of the trail for several years after construction. There will be very limited need for surface repairs in the first 5 years. Bridges and boardwalks are even less likely to need repair for the first 10 years of a trail's life, particularly as the recommendation is that the bridges and boardwalks be pre-fabricated.

It is difficult estimating the costs involved in maintaining a trail until every last infrastructure item has been installed. As stated earlier, ongoing maintenance can be minimised by building a trail well in the first place. The likely maintenance costs in the first few years of a trail's life will focus on sign damage and inspections.

12.4.2 Asset Renewal – General Notes

Asset renewal provisions should be provided for separately and cover replacement of surfacing, bridges and boardwalks.

It is highly likely that the available figures from the research (detailed above) do not provide for how replacement of major capital items is considered. In addition to maintenance, there will be a requirement for asset renewal.

The timing of this renewal will generally be between 10 and 50 years – an Asset Management Plan is the appropriate method for dealing with these items. Good asset management practice suggests money be put aside every year for renewal of these major items, even though much of it will not be spent initially.

Funding for these items could be sourced from external funding programs as compared with ongoing minor repairs for which major external funding is hard to find. Little maintenance will be required on newly built trail surfaces, bridge structures and other elements of the trail for several years after construction.

Asset renewal provisions should be provided for separately and cover replacement of major infrastructure items.

ASSET RENEWAL – SURFACING

Unsealed surface sections will not at any time be dug up and replaced. As such, unsealed surface sections of the trail with regular maintenance should have an indefinite life and hence require no provision for amortization. Grading from time to time, topping up with gravel and repairing drains are the major items associated with unsealed surfaces – provisions made for annual maintenance should cover work that needs to be done.

ASSET RENEWAL – BRIDGES AND BOARDWALKS

Bridge and boardwalk replacements are more difficult to assess. Prefabricated bridges and boardwalks will have a long design life (50-100 years). Appropriate provisions in asset renewal programs need to be made for these critical pieces of infrastructure.

12.4.3 Reducing Maintenance Costs

Using volunteers is the key element in reducing the maintenance costs. Volunteers could undertake much of the ongoing maintenance of the trail if a volunteer maintenance programme is arranged. It should be ensured that whoever is charged with ongoing responsibility for managing the trail has genuine and specific trail knowledge. It is not sufficient to be a skilled gardener, conservationist or environmental scientist. If training is required to bring staff knowledge levels up to a high standard, this should be seen as a priority to be undertaken early in the construction process. Trail skills are better learned over a longer time, with hands-on practice, than in short briefing sessions.

- The Munda Biddi Trail Foundation assists with planning, developing, marketing and maintaining the trail. It enlists paid memberships, enrols and manages volunteers, holds trail and community events, and provides information and resources to enhance the quality of the trail experience. Over 85% of that trail is maintained by volunteers.
- Activities of the Friends of the Lilydale to Warburton Rail Trail include revegetation, weed eradication, protection of remnant species, and building and restoration work.
- Parklands Albury Wodonga a community-based, not for profit organisation focused on undertaking the conservation of "bush parks" in and around Albury-Wodonga from an ecological perspective, whilst allowing sympathetic recreational access. One of the Group's projects is managing and maintaining the High Country Rail Trail.

Success of the Bibbulmun Track's success can be put down in large part to the efforts of the Bibbulmun Track Foundation. The Bibbulmun Track Foundation is probably the most successful 'Friends of' Group in Australia, with a paid-up membership in excess of 2,200 (in a number of categories).

The Bibbulmun Track Volunteer Program relies on the bushwalking community, and Bibbulmun Track walkers in particular, to commit their time to assist in the maintenance and delivery of the Foundation's Programs and services. It is estimated that around 80% of the Bibbulmun Track in maintained by volunteers in this program. An enormous amount of money is saved as the volunteers carry out many of the inspections and minor repair work.

Volunteers:

- Undertake a range of light maintenance tasks including pruning, clearing debris from the Track, replacing missing trail markers, installing water bars, removing litter and monitoring the campsite.
- Attends to their section at least 4 times per year (i.e. once every 3 months). In areas closer to Perth, or on sections that require a higher level of maintenance, more frequent visits are preferred.
- Submits a report to the Volunteer Coordinator after each maintenance visit. These reports are vital in assisting the Bibbulmun Track Foundation and DBCA in dealing with immediate problems and in planning for the future of the Track.

Newmont Boddington Gold (NBG), a gold mining and processing operation in the vicinity of the Track, is the proud sponsor of the Bibbulmun Track Foundation's 'Eyes on the Ground' maintenance programme.

Sources for ongoing maintenance funding may include commercial operator levies, commissions from billboard advertising, memberships of a Friends group and sales of merchandise. Funds could be used for trail operation and maintenance.

Many of these options are in place on other trails and fund a range of activities by the trail manager and the relevant trail support group (or Friends of the Trail).

SECTION 13: RESOURCES & FUNDING OPPORTUNITIES

Once the decision is taken to proceed, one of the first tasks will be to seek development funding. All funding sources available at that time will need to be identified and funding applications prepared as soon as possible, and dedicated resources made available. The Commonwealth and State Governments regularly review funding programs (particularly before and after elections); such decisions make the need to review this section at the time of seeking grants critical.

(Note: Funding programs do change; the information presented in this report is current at the time of writing).

13.1 Commonwealth Government

The Commonwealth Government had previously funded trails through Building Better Regions Fund (BBRF) but the fund has been unfortunately closed. Outdoor recreation generally and trail projects specifically have been funded by this program in previous years. It has funded a large number of walk and cycle trails, and mountain bike trails and mountain bike "destinations" across the country. Funding grants under this program have been quite significant.

The regional Precincts and Partnerships Program (rPPP) seeks to support transformative investment in regional, rural and remote Australia based on the principles of unifying regional places, growing economies and serving communities. However, applications have been paused for this program – only draft applications in the system can be progressed.

Presently, there appear to be no relevant Commonwealth Government regional programs through which trails funding can be sought.

13.2 WA Government

The Western Australian Bicycle Network (WABN) Grants Program (the Program) is the State Government's primary funding source to local government (LG) for the planning, design, delivery and activation of active transport infrastructure and related initiatives. The Program is administered by the Department of Transport (DoT).

This Feasibility Study was funded by a grant under this program.

The Program is based on a joint funding model, with the State Government providing a co-contribution of up to 50 per cent of the Total Eligible Project Cost. Applicants are required to contribute a minimum of 25 per cent funding and can seek contributions from third parties.

If funding was made available through this program for transport trails under the existing guidelines, the difficulty may arise in partner Local Governments finding the matching funds. Even a 25% contribution (if other partners can be found) will be a significant commitment.

LotteryWest offers funding under its Community Investment Framework. A trail might be eligible under a number of the priority areas (which include inclusive thriving communities and active healthy people).

Some members of the PWG expressed a view that this could be a potential funding program. In previous years, LotteryWest funded a large number of trail projects in WA, but this has declined in recent years.

Other programs such as the Community Trail Planning Grants Program through the Department of Creative Industries, Tourism and Sport may offer funds but these will be relatively small compared to the funding that will be required.

13.3 Private Sponsorship

Sponsorship is big business – and very competitive. Two main options exist: either negotiate with local/national corporate entities which have a geographical and social connection with the area through which a trail passes or go after the 'big' players for big projects. Many large companies have formalised sponsorship programs.

Elsewhere in Australia, funding for trail development has been received from a number of major (and minor local) companies.

- Alcoa has been a major contributor to Western Australia's two premier long-distance tracks – the Bibbulmun Track (walk) and the Munda Biddi Trail (mountain bike).
- BHP Billiton provided over $200,000 for the Coast to Crater Rail Trail in western Victoria to help construction.
- GlaskoSmithKline Australia has donated $10,000 to the development of the Warrnambool to Port Fairy rail trail project to encourage employees to combine their physical exercise with commuting to work. GSK has stated "We are proud to contribute to the establishment of the Port Fairy rail trail through our Community Partnerships Program. We see this project as being of benefit not only to our own employees, but also to the local community as a whole."

Significant sums can be gained if benefits can be proven. Any company with an operation within the region would appear to be a potential sponsor.

Companies are looking to be good local citizens and being associated with a positive asset such as a trail can be good for business. Companies should be approached with the message that such a project will bring a number of benefits to the region. Any approaches to corporate sponsors should focus on a main message that trails and the company products provide an alliance of healthy sustainable living and healthy sustainable products and sustainable economic opportunities (if such a link exists).

There are a large number of Green energy projects proposed for the region through which the trail passes (or at least within the areas of partner Local Governments). There may be an opportunity for funding to be sought through community benefit funds (or similar) which could contribute to trail construction. Discussions with partner Local Governments during the community consultation indicate that each of the Local Governments are aware of these funding opportunities and have a number of potential projects they are considering advocating for.

Corporate entities are looking to make community commitments in a number of ways other than direct funding. The Macquarie Bank Foundation looks to supply time and expertise as well as funding. Many other banks have both a competitive grants program and a volunteer scheme that provides paid volunteer leave to every employee. Organisations such as the ANZ and National Banks also look for community development options for their staff e.g. corporate team building days are held on a trail. It is important to note that, when considering these options, there are often exclusivity provisions around such programmes.

What is important in dealing with potential corporate sponsors is to have:

- A clear trail development plan (the next stage of work should the trail proceed);
- a well-developed message;
- clear pointers as to what and where their engagement might be; and
- a clear indication of how they might benefit from their involvement.

13.4 Other Trail Funding Resources

13.4.1 Work for the Dole

Schemes to provide meaningful work experience and some training for long-term unemployed are provided under the Work for the dole scheme. The program generally only supplies labour – the host agency is responsible for tools, materials, technical supervision etc. Work for the Dole activities provide work-like experiences and are run by host organisations. Work for the Dole can only be hosted by:

- Not-for-profit organisations/charities;
- local, state, territory, or Australian Government or organisations; and/or
- a not-for-profit arm of a for-profit organisation.

13.4.2 Conservation Volunteers Australia

Conservation Volunteers Australia provides small crews of volunteers, with a supervisor, to undertake environmental activities. Teams of between five and eight people work for one to two weeks. An administration fee is imposed by CVA. Materials, tools and technical supervision need to be provided by the host agency. CVA has been involved in trails project elsewhere in Australia – they were heavily involved in construction of a new walking track around the base of Mt Tibrogargan in the Glasshouse Mountains in South East Queensland. This trail is of the highest quality and is a testimony to their skills as trail builders.

13.4.3 Prison Crews

Crews of minimum-security inmates have been successfully used in trail construction and parks maintenance in Western Australia, the Northern Territory, NSW and Queensland. Much of the work on the Bibbulmun Track was carried out by prison crews including the prefabrication of shelter huts. Gympie Regional Council (in Queensland) has partnered with Gympie Probation and Parole to help maintain the station yards of the Mary Valley Rattler. The hours committed and the dollar value of those hours are not insignificant. In one year alone, community service workers attached to Gympie Probation and Parole contributed a total of 6,917 community service hours (valued at over $150,000) to volunteer community groups, Council initiatives, church groups and sporting clubs across the Gympie region by community service workers.

Looking at these projects, the labour supplied by inmates goes directly towards each project goal, while the inmates gain an opportunity to develop positive work habits, self-discipline and pro-social behaviours within a working environment.

13.4.4 Volunteers

Volunteers are often the last thought-of resource but are often the most effective. Many trails are only built – and then kept alive – by volunteer input.

There is also a growing network of trail advocates whose experience is extremely worthwhile. Concerns have been expressed in a number of forums (including popular media) about getting volunteers in a time when people have very busy lifestyles. This is acknowledged; however, the Bibbulmun Track provides an encouraging lesson (where some 80% of the 1,000km trail is maintained by volunteers). The ongoing success of the Tumbarumba Rosewood Rail Trail can be credited directly to the Riverina Highlands Rail Trail Inc, both for driving the project to fruition and its ongoing contribution to promotion, management and maintenance of the trail.

Volunteer labour can also be used in innovative ways to benefit a number of community sectors. The Lilydale Warburton Rail Trail (Victoria) needed bridge construction and put out a public tender for the work. The tender was won by the local branch of the Country Fire Authority, which needed a new fire engine. Labour in bridge construction was "swapped" for a new fire engine.

13.4.5 Philanthropy

There are a number of philanthropic organisations in Australia (though not in the same numbers as the USA). The brief has not permitted time to extensively research all these.

The Macquarie Bank Foundation currently contributes more than $2.5 million a year in community grants. Its core areas include the health care and research, the environment and the arts (trails can address each of these core areas).

The Ian Potter Foundation has a number of interests, including environment and conservation (details can be found at www.ianpotter.org.au). Its' Environment and Conservation program supports small projects that combine elements of biodiversity and ecology preservation, volunteerism and community education. A trail development could fall within this mandate.

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APPENDICES

APPENDIX 1: PROJECT WORKING GROUP MEETINGS NOTES

Beverley to Narrogin Transport Trail Study

Inception Meeting – held on Thursday 29 May 2025 at 10.00am at Shire of Pingelly

Notes of Meeting

1. Attended by Andrew Dover (Pingelly), Jacinta Murray (Beverley), Deanne Sweeney (Brookton), Vicky Eckersley (Narrogin) and Mike Maher (Transplan Pty Ltd). (Apologies: Chris Paget – Cuballing; Mike Halliburton – MHA).
2. Confirmation of regular meeting dates/times/places and proposed schedule:
    - Friday June 13 (10.00am) - at conclusion of field trip #2 (assessment of trail route options; meetings with key stakeholders)
    - Thursday July 17 - presentation of Progress/Interim Report
    - Friday August 15 - at conclusion of field trip #3 (community consultation)
    - Wednesday September 10 - at conclusion of field trip #4 (refinement of preferred route option)
    - October meeting (date to be confirmed) - presentation of Business Case
3. Reports of relevance (not publicly available on websites) – **Action:** group was reminded to provide any reports or other documents to the consultants that are not already listed on paper sent with agenda. Consultants are looking for strategic documents and reports that strengthen the case for the Transport Trail and/or which provide data on who visits the towns/region, where they come from, how long they stay and how much they typically spend.
4. Review / comments on methodology – methodology is typical of how MHA and Transplan undertake a trail planning study. No changes required.
5. GIS: it is important that consultants gain access to land tenure information to enable discovery of ownership of land (i.e. which parcels are road reserve, which parcels are railway reserve, etc). **Action:** Mike M to contact each local government working group rep to see if access can be obtained through their Landgate account. Mike M has already obtained digital mapping data (cadastre) for all local governments to be used as the basis for the trail plans which will show preferred trail route and options, major works items, trailhead locations, etc. Mike M has also purchased mapping from DBC&A which will be used during fieldwork. Obtaining approval for use of railway maintenance track from ARC may be difficult. Need to show examples of successful/safe shared paths alongside operating railways elsewhere eg. paths along electrified commuter railway line in Melbourne.
6. Review of trail routes and potential issues: discussion around type of trail and whether it should accommodate horses. Growing use of e-bikes acknowledged. Mapping will illustrate potential alignment and optional alignments. Signage should conform with DBC&A and DLGS&CI *Trails Development Series | Part A - A Guide to the Trail Development Process Trails Development*. (A reminder of the eight stages of the trail development process).
7. Discussion of suggested locations for trailheads in each town. **Action:** each working group rep to consider best location and advise. Pioneer Park in Pingelly considered best. Two options in Beverley. Visitor Centre in Narrogin obvious location. Couple of options in Cuballing. Consultants to also investigate options during fieldwork. Also look for connections to local and nearby attractions, notably Dryandra.

8. Consultation with key stakeholders: **Action:** working group reps to provide contact details of people/organisations/stakeholders that should be contacted/consulted (eg, Beverley Heroic, Beverley Rivercare Group, Brookton Town Team, Pingelly Tourism Group). Any others?
9. Community consultation: **Action:** Mike M to be in contact with working group reps regarding best time (date/time/place) for community consultation events. Community consultation sessions will be "open houses" where people can drop in at any point during the allotted period for a one-on-one discussion with the consultants. There will be draft plans of the potential route and optional alignments, as well as photos etc of how the trail might look. This will foster discussion and feedback. Working group to provide information on booking of rooms etc.
    - SurveyMonkey is the preferred means of getting questionnaire survey out to as many people in the community. Purpose is to inform the community as much as it is to gain information from them.
    - Potential survey questions discussed – **Action:** Mike M to update draft questions and circulate for final review prior to being published. An emphasis on why they ride/walk and how they might use the Transport Trail.
    - Shire of Pingelly's Consultation Framework – available on Council website (called *Communication Plan* – illustrates actions and principles).
    - Invitation to community consultation sessions can be done via Councils' websites, Councils' Facebook, local papers and newsletters (eg. Pingelly Times, Beverley Blarney, etc). Hard copies can be made available in various locations.
    - **Action:** Mike M to provide regular updates on progress of study and upcoming consultation events for publication via these means.
10. Aboriginal consultation process:
    - **Action:** Consultants to contact Gnaala Karla Booja Aboriginal Corporation. (Charne Hayden, Co Chairperson, Gnaala Karla Booja Cultural Advice Committee)
    - Ballardong Aboriginal Corporation - **Action:** contact details to be provided by the working group.
    - Aboriginal Land and Sea Council - **Action:** contact details to be provided by the working group.
    - Seabrook Aboriginal Corporation (Brookton) - **Action:** contact details to be provided by the working group.
    - Pingelly Aboriginal Progress Association - **Action:** contact details to be provided by the working group.
11. Study Report to be presented to each Council according to how similar reports are presented. There may or may not be a community review of the draft and/or the final study report.
12. Miscellaneous items:
    - "Narrogin-Boddington Rail Trail" mentioned in the briefing paper. Not happening.
    - **Action:** Mike M to contact people at PTA regarding "Transport Trail" proposals and advice on how to obtain approval from ARC.
    - **Action:** Mike M to contact Sarah Court and/or James Pearce regarding the possibility of a 2050 Cycling Strategy for this region.

- Report to provide typical cross section drawings (for trails construction manual) for various different topographical conditions along the preferred/recommended trail route.

13. Additional items discussed:
    - Transport Trail should be considered as a component of a much longer future trail (connecting to Collie and beyond via the existing and proposed rail trails; and new trails projects to the north of Beverley) – potentially connecting to Bunbury to the south west and to Perth to the north west
    - Potential name of the trail and future branding of the trail – logo etc. **Action:** working group to give consideration to naming of trail.

14. Next meeting: Friday June 13 (10.00am) at Shire of Pingelly (at conclusion of week of fieldwork).

Beverley to Narrogin Transport Trail Study

2nd Meeting – held on Friday 13 June 2025 at 10.00am at Shire of Pingelly

Notes of Meeting

1. Attended by Andrew Dover (Pingelly), Jacinta Murray (Beverley), Deanne Sweeney (Brookton), Regina Razumovskaya (Narrogin), Mike Maher (Transplan Pty Ltd) and Mike Halliburton (MHA).
(Apologies: Vicky Eckersley - Narrogin).

2. Action Items from inception meeting:

- The consultants discovered the Cuballing/Popanyinning Community Development Action Plan, which includes an action to explore the feasibility and funding options for a rail trail between Cuballing and Yornaning.
- GIS – MM has all the access that is needed at this point. MM will contact individual Councils if more specific information is required.
- Trailheads – are all self-explanatory, though there are 2 options in Cuballing.
- MM advised of communication with key stakeholders:
    - He has spoken to James Pearse (consultant responsible for several Regional 2050 Cycling Strategies) and has a meeting with him in the week beginning 16 June. He noted that transport trails and what they include/cover will be a topic for this meeting.
    - He has spoken to and emailed Jim Krynen (Cycling Coordinator, PTA). MM reported back on information received in an email from Jim regarding ARC Infrastructure and its role (summary of email will be circulated prior to next meeting).
    - MM has organised a meeting with Charne Hayden, Co-chairperson, Gnaala Karla Booja Aboriginal Corporation (note: was scheduled for Thursday 19 June but has been postponed due to her illness).
    - MM has contacted the Wheatbelt Cycling Collective (Michael Chin via email. RR noted there is a new cycling group emerging in Narrogin. **Action:** RR to provide contact details to MM once known.
    - MM has contacted the Ballandong Aboriginal Corporation.
    - Further consultations to occur as the project proceeds.
- In discussions with Shire of Beverley, consultants have been given a contact for the Beverley Heroic cycling event.
- MM also reported that consultation times have all been set except for the Shire of Cuballing (see Item 5).

3. Amended survey questions

MM tabled the suggested amended survey questions, noting that they had been previously distributed to the Project Working Group. RR asked whether it was clear to the Project Committee what the objective of the questionnaire was and who it was intended to reach. Consultants indicated that this question was true for the broader project and this would be the subject of discussions under Agenda Item 6; once that discussion was finished, it may be appropriate to review the questionnaire. A detailed comment was whether any mention should be made of use of maintenance track.

4. Key stakeholders contacted and to be contacted
Covered under Agenda Item 2.

5. Community consultation
Mike Maher reported that consultation individually with each of the Councils had yielded the following community consultation schedule.

Wednesday 13 August
- 12pm – 2pm Brookton – Brookton Community Resource Centre
- 4pm – 6pm Beverley - Cornerstone 2018

Thursday 14 August
- 12pm – 2pm Pingelly
- 4pm – 6pm Narrogin (agreed at the meeting with RR)

Friday 15 August
- 10am – 11 am Project Working Group meeting at Pingelly – to report on the community consultation sessions
- 12pm – 2pm Cuballing CWA Hall (*Note this timeslot was not tabled at the meeting but was discussed and agreed subsequently with Chris Paget, Cuballing CEO who the consultants met with after the SC meeting*).

6. Initial observations from fieldwork
MM observed that life would be so much simpler if:

1. ARC Infrastructure would say yes to using the existing maintenance track within the railway reserve; and
2. All the road reserves alongside the railway reserve and highway were continuous.

BUT neither condition applies.

MM made the following relevant observations about the proposed trail alongside the railway line and significant roads (the teal route as shown on the presented composite maps):

- Road reserves alongside railway reserve are discontinuous; sections of the railway line do not have road reserves immediately alongside.
- There would be a need for use of existing crossover points as permission to create new crossings would not be given.
- Observation/counting of pipes/culverts under railway and bridges (as a general indicator of what might be required under a railway corridor trail).
- Measurements made of two sections of highly accessible maintenance track where "use" of maintenance track may be possible (note: these are two of the three "best" sections i.e. where bigger percentage of maintenance track IS NOT within railway reserve):
  - Watsons Road to Johnston Road (north of Cuballing): = 20% of maintenance track in road reserve: 30% is on reserve boundary line: 50% in railway reserve.
  - Johnston Road to Farrelly Rd (also north of Cuballing): = 40% of maintenance track in road reserve: 40% is on reserve boundary line: 20% in railway reserve.
- In most other locations the existing maintenance track appears to be primarily within the railway reserve.
- Lack of variety of scenery and relative dullness of the railway/highway corridor. Existing tracks are muddy and rough; some are under water (at time of inspection).

Vegetation is quite thin and monotonous in much of the corridor and clearing for highway and railway is obvious.

- Examination of quiet gravel backroads – appears to provide good opportunities for cycle touring. No or minimal construction required other than wayfinding signage. No bridges required as already in place on roads.
- Consultants will prepare a "Pros" and "Cons" table for each option prior to next Working Group meeting.

The key questions underpinning the fieldwork and the considerations for the consultants to date are:

- What is being sought?
- What will be delivered?
- Who is the market?
- What will the cost be?

MM and MH presented the case for the road-based route (what was termed the orange route on the presented composite maps) emphasising minimal construction costs, appeal to cycle tourists, wonderful scenery (with elevated sections offering long views); it passes by such natural attractions as Dryandra Woodland National Park; it gets users "up close" experiences of rural activities; and there are opportunities to link to historic features such as old schools sites and old town sites such as Moorumbine.

Project Committee members thought that they would be presented with an option utilising reserves along the railway line (in road reserves) to offer a safe, off-road cycle and walk option for local people, families and grey nomads who were staying in local caravan parks. This is what they believed the market to be for the Beverley Narrogin Transport Trail. The orange route does not address that demand for a range of reasons.

Discussion followed of the relative costs/benefits of the two possible alignments – the orange route which follows quiet country roads and the teal route which predominantly uses maintenance track where possible (within road reserve) and many kilometres of new single track connecting sections of maintenance track (within road reserve).

The consultants put forward that the orange route was a very low-cost route with high appeal to cycle tourists (often called "wallets on wheels"), whereas the teal route would have likely high costs and low appeal to cycle tourists (but possibly high appeal to local people but with low spend).

There was discussion of what actually is a 'transport trail":

- Who is the target market?
- What type of trail/track/road is it?
- Example of transport trail connecting Beverley to County Peak (from *Avon 2050 Cycling Strategy*) was given as an example – it follows gravel roads.
- Assumption (made by the consultants) that transport trails are primarily for cyclists, and are regional facilities, as they are proposed in various regional cycling strategies while noting that the definition in the strategies does not preclude walkers and horse riders.

There was discussion of who is the target market for the Beverley to Narrogin Transport Trail. The Project Committee believes that the key elements of the target market for the trail are:

- A shared trail to cater for local people and people staying in caravan parks;
- There is a need to have local trails for local people to use (also triggers funding opportunities from Lotterywest if trail is for local people).

AD noted that the existing Pingelly MTB strategy is aimed at the family market; how do we deliver an additional trail for this market as part of this project? AD identified a "stereotypical" trail user of Pingelly's proposed MTB trail – this would be a family group looking for a MTB ride with some minor "technical" elements then looking for an easy safe off-road path to provide an add-on activity.

There were concerns that the orange route did not offer appeal to this key market. There were concerns over perceived safety issues on gravel roads (for local users), and concerns over the impact of heavy vehicles (harvesters etc.) during harvest months and machinery during seeding months. It was noted that harvest months are through summer which would reduce likely use of the trail due to hot weather.

Subsequent discussion ensued about the relative appeal of the two options to the visitor market (AD and others thought people would come from Perth to ride a trail alongside the railway; MM and MH were firmly of the view that they would not). MH responded that, unfortunately, there is no way of determining this definitively. The survey (as presently put together) will be of some utility but results will depend very much on how many of each potential market respond.

Discussion then followed around a number of particular issues with the two options:

- AD thought the drainage issues were not so significant that they could not be addressed by leaving vegetation in place in many circumstances. He noted that the railway and railway maintenance track had significant clearing either side of the centreline thus creating a drainage problem and the need for a large number of culverts which may not all be necessary if construction techniques are correct.
- MH raised the maintenance issue and ongoing costs associated with the teal trail but this did not seem of particular concern.
- The Munda Biddi Trail is the desired construction level in terms of what is being sought for this project.
- The orange route passes through the Dryandra Woodland National Park and it is noted that there are opportunities for loop rides within the park off the orange route (if cycling is permitted within the NP). Project Working Group members noted that a new management plan for the Park does allow cycle tourism and the Department of Biodiversity, Conservation and Attractions is preparing a cycling plan for Dryandra.

SUMMARY AND KEY DIRECTIONS

The Project Working Group acknowledges the appeal of the orange trail to a certain market but is of the consensus view that the Beverley Narrogin Transport Trail will be designed for a particular market whose needs are better addressed by the teal trail.

Provision of both trail routes (orange and teal) would benefit maximum number of potential users. Creating the orange trail first delivers a "quick win"; construction of the teal trail section by section is required and in doing so, this will also create a series of loop trails out of each town.

The Project Working Group also issued some key directions for the consultants to be aware of in the next stage of work for the project:

- The teal cycle and walk trail is to be entirely within existing road reserves: where the existing maintenance track is in road reserve, it can be used. Otherwise new trail will need to be built.
- From the consultants' preliminary examinations, some of ARC Infrastructure maintenance track is in road reserve rather than railway reserve – should it be? AD indicated this was a point of negotiation with ARC as the project moves towards implementation.
- If there are identified gaps between road reserves (such as the south of Beverley identified in the meeting), the relevant Local Government will "negotiate" with the relevant landholder to ensure a connection.

7. Example of "Central West Cycle Trail" NSW

MH spoke to the tabled description of the Central West Cycle Trail and how something similar could be developed between Beverley and Narrogin – in effect this is what the orange route proposes.

8. Potential name and future branding of the trail

There was discussion about naming and what the Noongar name for numbat was if this was the trail name to be used. This is a work in progress.

9. Next meeting

Scheduled for Thursday 17 July. Presentation of Progress/ Interim Report to be the key agenda item.

Beverley to Narrogin Transport Trail Study

3rd Meeting – held on Tuesday 29 July 2025 at 10.00am at Shire of Pingelly

Notes of Meeting

Attended by Andrew Dover (CEO Pingelly), Jacinta Murray (Beverley), Steve Gollan (CEO Beverley), Deanne Sweeney (Brookton), Regina Razumovskaya (Narrogin), Mike Maher (Transplan Pty Ltd). Mike Halliburton (MHA – attending remotely)

1. Presentation of documents

MM opened the meeting with notes about what documents have been sent to the project partners – the Interim Report, the draft "information flyer", the draft "community consultation notification", and the draft survey.

MM focussed initially on the Interim Report. He noted that the main task for the consultants after the previous meeting was to work out how much of the maintenance track is on railway reserve and how much is on public road reserve. MM explained the process he used to determine the percentages, and these are included in the Interim Report and on the maps. The conclusion was that to have a trail paralleling the highway and railway will be a very expensive project noting that some 80kms of new track will need to be built in road reserve. MM explained that the consultants have not tallied up detailed costs, but the order of costs will be $5 million - $10 million.

MM ran through the tables contained in the Interim Report showing the amount/distance/percentage of maintenance track in and out of the road reserve. He also indicated that the Report included a table summarising the pros and cons of both the green and the orange route. He noted that some new trail will inevitably be on or directly alongside the Great Southern Highway because there is no other option.

Discussion

Following MM's opening remarks, there was discussion about the Interim Report.

AD indicated that he thought the Interim Report provided a good summary of where the project investigation has got to. He thought - at the last meeting – we had come to a "spot" (or possible agreement) that the Councils should pursue both trail options (green and orange), but he wondered whether this agreement had actually been reached by all Councils. In summary, the green route should proceed with loops out from each town from Beverley to Narrogin.

Attendees indicated they were not daunted by the high cost of the trail. Project members agreed that the Councils would not be funding the trail construction but would rather seek grant money to do so. AD noted that trail projects tend to have a habit of "popping up" in government priorities. MM cited the Wadandi Track (rail trail between Busselton and Flinders Bay) as a good example and well as the Munda Biddi (where both projects lay dormant for many years and suddenly grant funding was made available). He informed members that he had done the detailed trail planning work for the Wadandi Track in 2012, and the Government has only recently announced funding ($17.5 million) for the project's completion (a distance of 63 kms – a major part of the trail). AD indicated that while the Group had a plan they could work towards finalising the trail over time.

There was discussion about whether a staged approach may be the best way to develop the project. This could consist of "we definitely need to do these bridges initially then we build

on that work and so on until the complete trail (orange and green routes) are finished'. JM suggested that the project (in its entirety) be pitched as a trail network to be delivered in stages. RR suggested a staged approach could involve developing the orange route first followed by sections within the green route. Factors to be considered in determining the stages could include land tenure (build point to point sections with no tenure issues first) and the difficulty and expense of constructing the stage. MM indicated that getting into and out of the towns presented the most discontinuities in terms of road reserves – these would be the more difficult sections. He informed the group that getting into and out of Beverley and Brookton would be the most difficult towns to access and any solution would not be ideal (but could be found). JM suggested that developing the green trail out of Narrogin would be the obvious first stage given the suggested route (on the maps).

The group acknowledged that there will be different target groups for the orange and green trails.

There was agreement that a shared vision is needed for the entire project. RR acknowledged that each shire may have its own views on the trail which they will pursue. It's not so much about the cost but rather about the project. For example, Narrogin already has a lot of trails within the town limits and may not give this trail such a priority. She noted that a meeting with a cycling group indicated that the orange route is one already being used by cyclists (informed by a meeting with the cycling group). SG asked about trail options within and getting out of Beverley. MM indicated there were no options alongside the highway and that the on-road route presented the best short-term option; the proposed Commonage Trail would provide a good option to get out of Beverley in the medium term.

It was agreed that the routes are subject to community consultation – comments on the orange route and the green route were being sought through that process.

AD suggested a conversation with the Department of Transport to see how flexible the definition of a transport trail is. MM reflected on his discussions on this matter with James Pearce who was a major contributor to the various relevant regional cycling strategies (and noted that this discussion is reported in the Interim report).

2. Consultation

- MM referred to the tabled documents and noted that the intention at the Community Consultation Sessions was to have display material:
    - The 5 plans;
    - A sheet outlining the pros and cons of the trails;
    - Photos of both trail routes – he intends to use drone to take photos of the green route;
    - Hard copies of the questionnaire; and
    - (Possibly) the Interim Report (for perusal).

- The group agreed that the choice was not really between the green route or the orange route rather about seeking input on both elements.
- It was agreed that the survey should remain open until 22 August leaving people enough time to respond after the community consultations sessions.
- There was extensive discussion around the wording of the survey (which was followed up after the meeting with the redrafting and agreement of group members).

- The Interim Report and the Plans should be placed on each Council's website for people to access if needed. Councils would be responsible for posting this material on their websites.
- The survey could be included in council newsletters as relevant (depending on timing).
- DS asked whether it was a necessary for a Council officer to be in attendance at the consultation sessions. MM responded that while desirable and helpful (if there were other queries about Council activities), it was not entirely necessary.
- MM also expressed concern about the lack of participation in meetings by the Shire of Cuballing noting it had the biggest length of corridor. He indicated that the consultants had spoken to Chris Paget on the last field trip about the project (subsequently the consultation documents sent to all councils after the meeting were downloaded by Chris).

3. Horse use of the trail

MM noted that he had circulated to members his proposed response to queries from two horse riding groups regarding horse use of the trail. He sought the views of the group as to whether horse riding was to be permitted, noting that horse riders can already use the orange route (whether they choose to or not is another issue). Could a section of the green route be used for horses? The answer revolved around whether there was demand for horse riding. It was agreed that there would be nothing put in the questionnaire about horse riding. There was also general agreement that horses not be provided for on the trail with the possible exception of sections in Cuballing (noting that Chris Paget had expressed a view that horse riding was a key activity within the Shire of Cuballing). MM suggested that what the Shire of Cuballing and the Shire of Brookton needed was a Trails Master Plan which looked at the totality of trail provision and what the gaps and opportunities were depending on demand. The Shires of Beverley, Pingelly and Narrogin had all undertaken such projects. This would help lay out horse riding demand and opportunities.

4. Next meeting

The next meeting was originally scheduled for Friday 15 August as part of the consultation fieldwork to provide an overview of the consultation. It was agreed that this meeting not be held and that the next meeting be held as an online meeting on 4th September after the survey period had closed and accounting for the availability of the consultants. Presentation of the consultation results will be the key agenda item.

Beverley to Narrogin Transport Trail Study

4th Meeting – held on Friday 5 September at 1.00pm remotely

Notes of Meeting

Attended by Andrew Dover (Pingelly), Jacinta Murray (Beverley), Deanne Sweeney (Brookton), Chris Paget (Cuballing), Mike Maher (Transplan Pty Ltd), Mike Halliburton (MHA)

Regina Razumovskaya (Narrogin) was a subsequent apology.

1.Feedback from Community Consultation sessions

MH ran through the key results from the survey noting it had been closed on 3 September in light of AD's conversation on ABC radio in late August. There was some discussion about the percentage of respondents being from the Greater Perth region (70%).

MM asked whether the questionnaire results change anything about our approach; the PWG determined to proceed as per the agreed approach at the previous meeting i.e. continue to analyse the green and orange routes.

MM noted that the meeting with the Narrogin cyclists early in the consultation process resulted in that group making a number of suggestions for more loop trails but he re-iterated that the consultants' task is to find a route from Beverly to Narrogin. If the brief had requested loop trails out of each town, the consultants would have provided different results.

There was some discussion of names as MH reported the broad feedbacks on names. There was a suggestion that the names could be different at a geographic scale – the 800km loop trail as promoted by AD could have one over-arching name; the Beverley Narrogin Transport Trail (BNNT) – as a sub-section - could have a different name while each of the segments of the BNNT could have different names (as suggested by one respondee).

2.Update on green route planning south of Beverley (to Kokeby and beyond)

MM spoke to the maps he had previously sent around covering a possible new route on Vacant Crown Land connecting Beverley and Kokeby. He noted the distances on the new route would be:

- Caudle Road to Kokeby 10 kms.
- Kokeby Road to Yenyening Road 4.7 kms.
- Yenyening Road to Southern Branch Road 4 kms.

This would be a total distance of 18.7 kms approximately.

Such a trail will require an Aboriginal Heritage Survey at the time of trail construction if the trail proceeds. Line items for this survey need to be included within the costs tables.

Issues likely to be raised associated with the new route will be the probable negative reactions of adjoining landholders (noting that the respondees who provided commentary on the use of Bremner Rd and its impact on theft risk and privacy are also

likely to be affected by the use of the river corridor) and potential flooding noting that there has been 2 floods in the last 10 years through this section of the Avon River.

JM indicated that a route along the river would be very attractive and lift the trail to new levels of aesthetic appeal.

MM re-iterated that there is no perfect alignment particularly through this section (Beverley to Kokeby) but using the highway verge is not possible.

MM noted that there are other issues worth noting already identified:

- Farmers are cropping the road reserve just south of Southern Branch Rd – a trail will be routed through this area if constructed.
- In addition, some road reserves north and south of Brookton are being cropped.

These issues will mean a general title survey will be needed to establish precise boundaries if trail construction proceeds (and needs to be included within the costs tables).

AD noted that native title settlement sits over much of this land and this will need to be considered. Much of what is in the native title settlement is in the public arena.

AD noted that he had some initial "overview" conversations with the Shire of York about connections north of Beverley and the development of the ultimate trail but had not had conversations with Shire of Williams. MM noted that the rail trail was complete from east of Collie to Dardadine siding (all within the Shire of West Arthur) and that he had completed a very basic feasibility study for the Darkan Williams Rail Trail, noting that the Shire of Williams was very opposed to the trail at the time (2008). *Action: MM will send a copy to AD*.

3. Upcoming fieldwork - refinement of preferred Transport Trail route(s)

MM noted that upcoming fieldwork (in the week beginning 15 September) will further refine the green route. He noted that some changes have been made to the orange route as a result of the Open House events where respondees raised concerns about traffic volumes along the original route. Options were investigated during the last field trip associated with the Open Houses and now form part of the orange route. They primarily revolve around the approaches to Pingelly from the east and Cuballing from the west and effectively put both these towns on a spur trail.

MM asked DS about the proposed Brookton Pool Trail that she had previously mentioned as it would be useful to include this in the consultants' consideration but she indicated there is no map but rather a destination near Youralling Rd.

4. Progress towards submission of draft report

Progress towards the draft report was noted which fed into discussion about the next meeting. The next meeting will focus on presentation of the draft report but primarily focussing on the Business Case and the costings rather than the routes.

Next meeting: Presentation of Draft report notably the Business Case – date to be decided.

APPENDICES

APPENDIX 2: SURVEY RESULTS

Proposed Beverley Narrogin Transport Trail

The Wheatbelt may get a new long-distance cycle and walk trail network between Beverley and Narrogin. The Shires of Beverley, Brookton, Pingelly, Cuballing and Narrogin are exploring the possibility of developing a "transport trail" between Beverley and Narrogin - a long-distance, cycling and/or walking experience through natural settings, away from the motorised traffic of the Great Southern Highway.

The proposed transport trail between Beverley and Narrogin may eventually link to the north with York, Northam, Toodyay and the Perth Hills. At the southern end of the transport trail, it could connect to the proposed Narrogin – Williams Rail Trail and potentially through to Collie via the Collie Darkan Rail Trail.

The proposal is for a cleared narrow trail that primarily follows the railway and/or Great Southern Highway between all the towns from Beverley to Narrogin and return route that primarily uses existing quiet, gravel backroads linking all the towns and other places of interest.

The route along the rail is approximately 105km. Approximately 80km of new trail would need to be constructed, including water crossings. This will be a dedicated track separate from vehicles. However, due to construction constraints, it is likely that this trail will take a significant time to be developed.

The route using existing quiet gravel roads is significantly simpler to construct and therefore can be developed once funding allows. This route passes a number of historic sites, including old school sites, old townsites and through the Dryandra Woodland National Park.

Your answers to the following questions will help in determining whether the concept is feasible.

1. Do you own a bike

- ◯ Yes
- ◯ No

2. If so, what type of bike

- ◯ Road bike
- ◯ Mountain Bike
- ◯ E-bike
- ◯ Other (please specify)

3. How often do you ride a bicycle or take a long walk/ride?

- ◯ Daily
- ◯ Weekly
- ◯ Monthly
- ◯ Rarely
- ◯ Never

4. What are the reasons you ride or walk?

- ◯ Commuting to work
- ◯ Health and fitness
- ◯ Leisure, activities and scenery
- ◯ Other (please specify)

5. Would you enjoy the potential to travel between the towns along the highway from Beverley and Narrogin, on a trail that takes you off the Great Southern Highway?

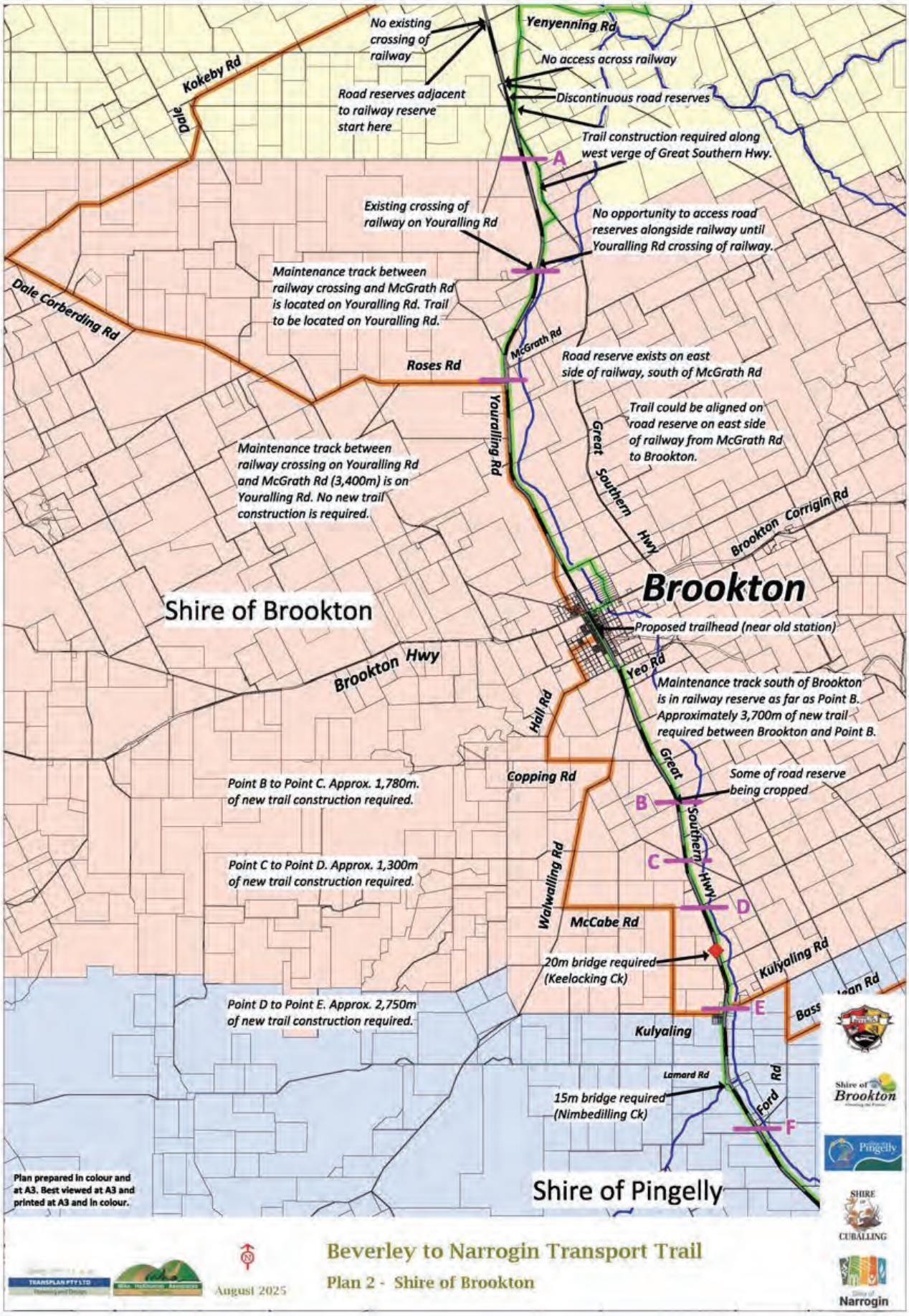
- ◯ Yes
- ◯ No

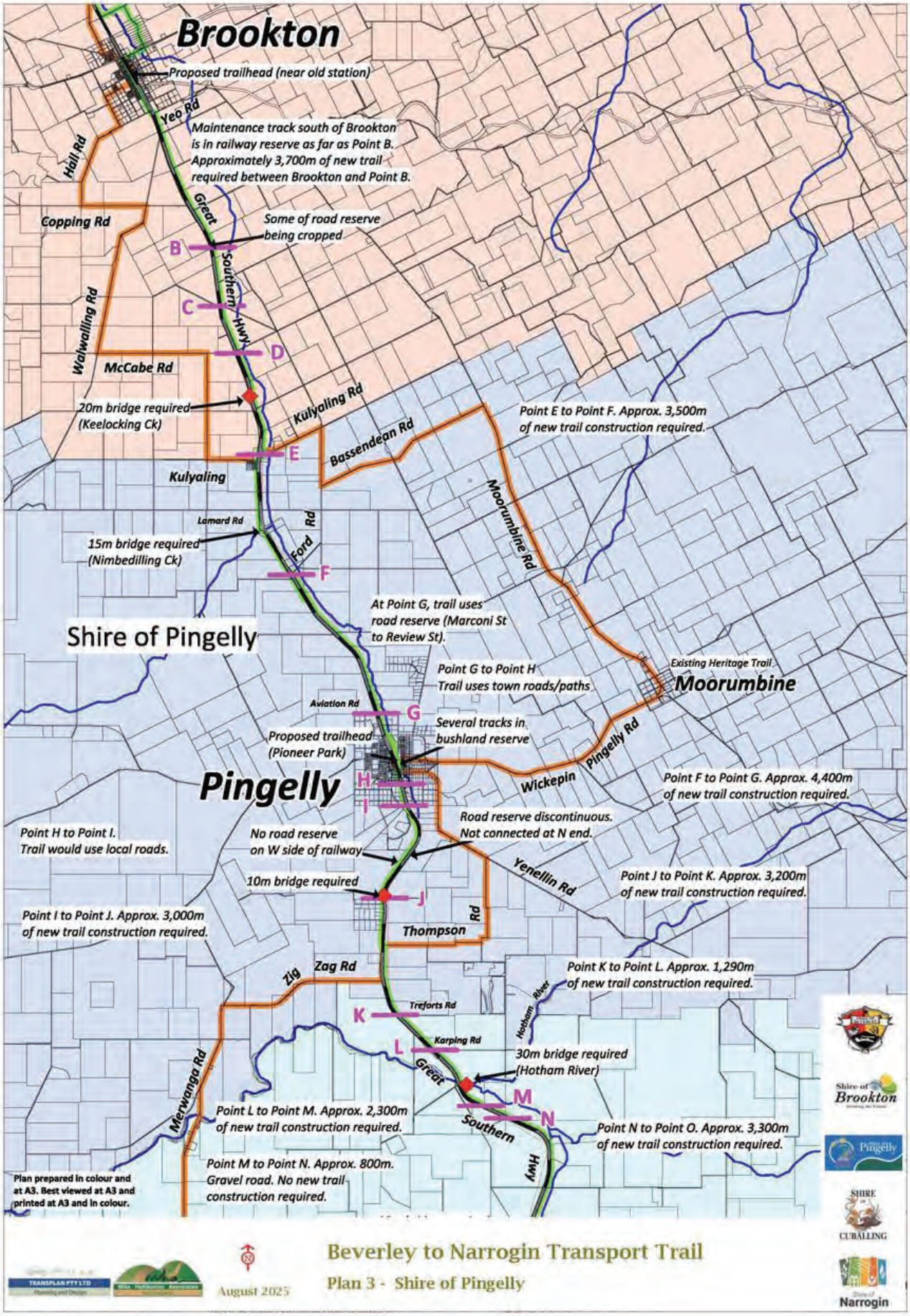
6. The green and orange routes (shown on maps on the following pages for each Shire) are proposed as one trail with two different elements. Would you be more likely to use (please tick one):

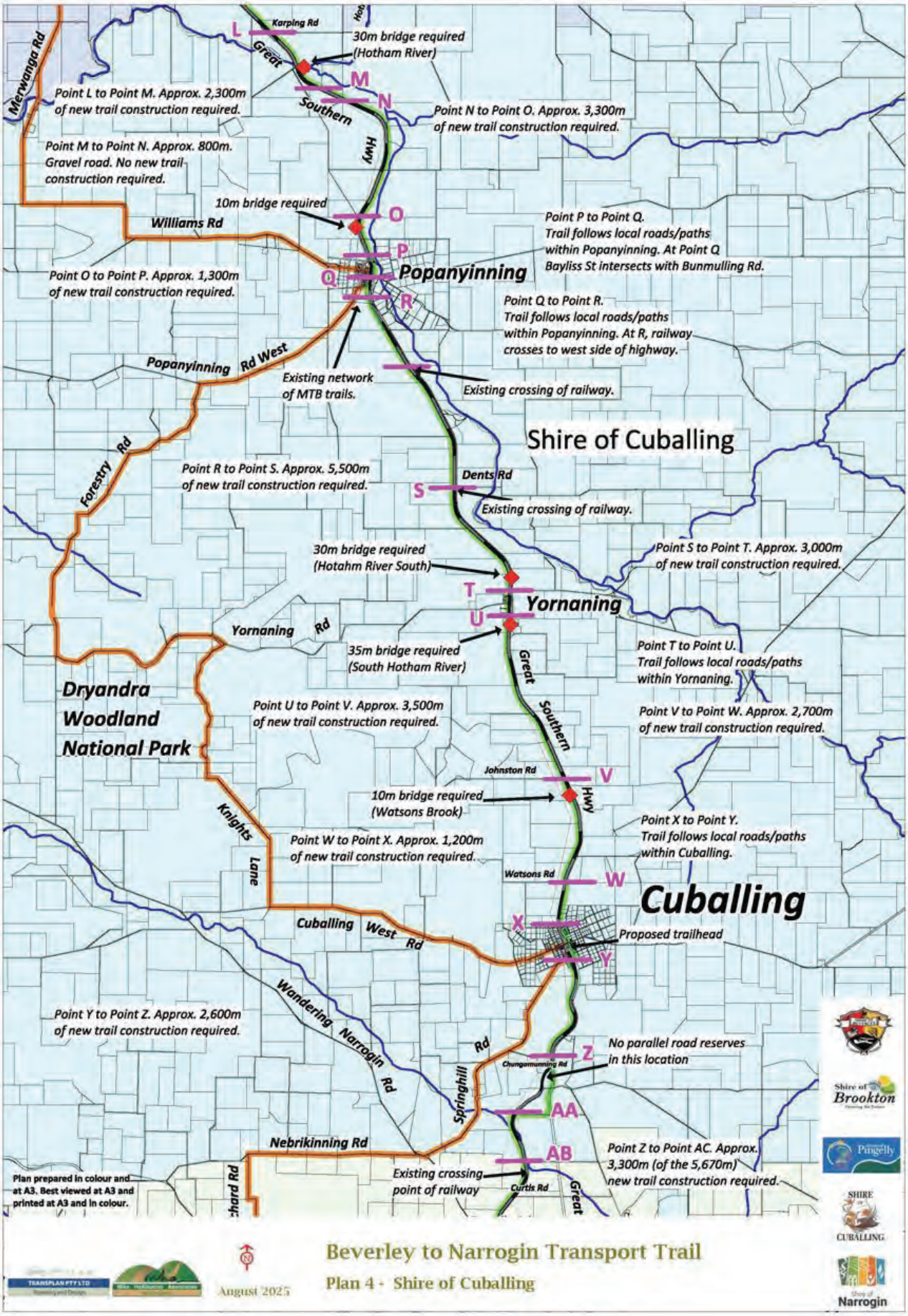
- ◯ The green route (primarily a cleared narrow trail alongside the railway line and highway in some places)
- ◯ The orange route (a gravel cycle route using quiet country roads)
- ◯ The entire trail (the green and orange routes)

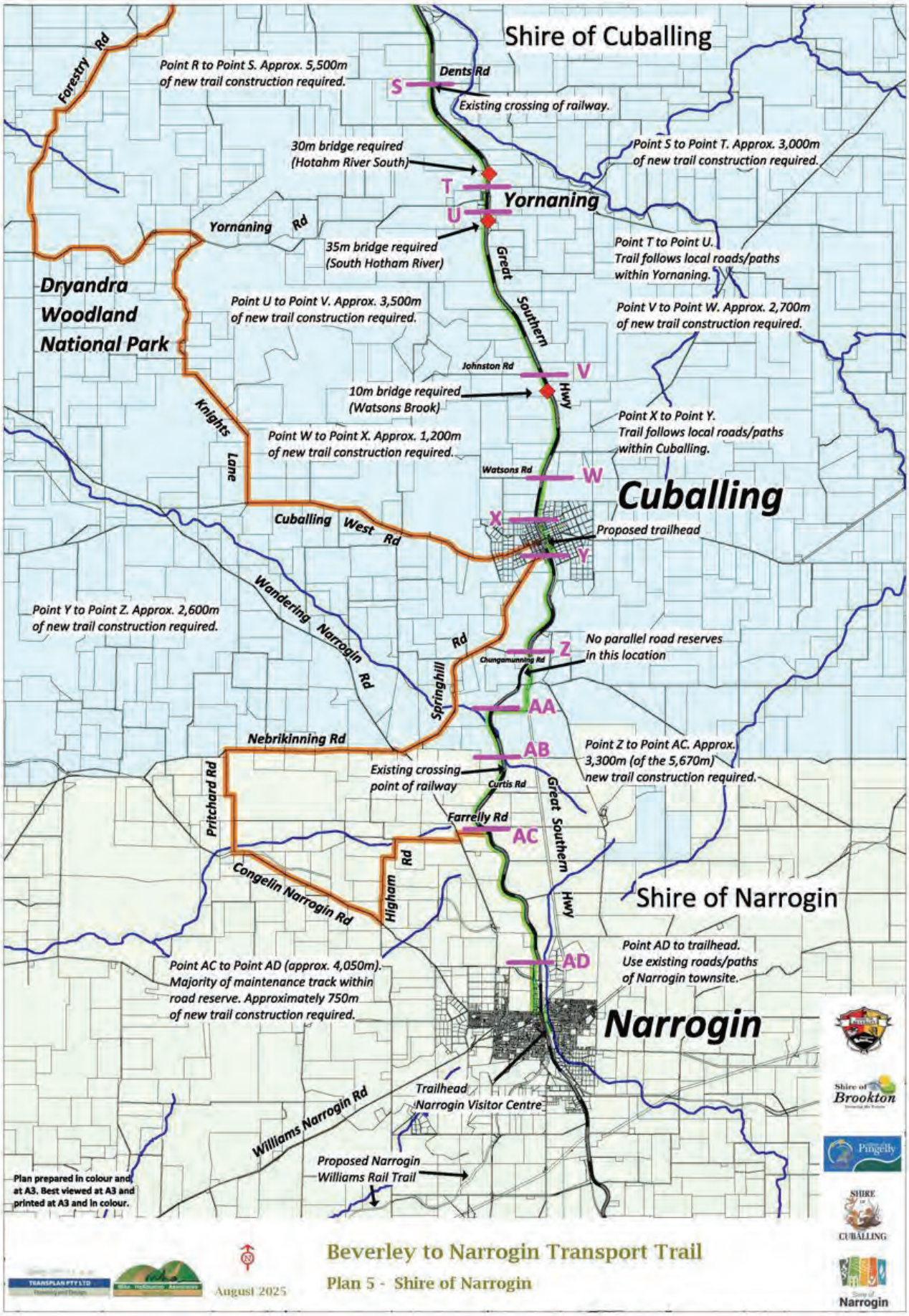
Please state your reasons for your choice


Beverley
Shire of Beverley
Proposed trailhead: Apex Park
Lukin Street
Waterhatch Rd
Trail could use the proposed Commonage Walls Trail when developed.
Proposed river crossing on Commonage Walls Trail
Green route uses Bremner St, Patten Rd and Yenyenning Rd. No trail construction required.
Most of road verge of Great Southern Hwy between Beverley and Youralling Rd is very narrow and not suitable for a trail.
Bremner Street
Avon River
Beverley Westdale Rd
No parallel road reserves
Beverley to Kokeby (approx. 13,000m). Virtually no usable road reserves adjoining railway.
Kokeby East.Rd
Patten Rd
Note: Few road reserves along railway between Beverley and 5.3km south of Kokeby.
Maintenance track entirely within railway reserve Dale Kokeby Rd to Point A (5,400m)
Kokeby
Yenyenning Rd
No existing crossing of railway
No access across railway
Kokeby Rd
Dale
Road reserves adjacent to railway reserve start here
Discontinuous road reserves
Trail construction required along west verge of Great Southern Hwy.
A
Existing crossing of railway on Youralling Rd
No opportunity to access road reserves alongside railway until Youralling Rd crossing of railway.
Maintenance track between railway crossing and McGrath Rd is located on Youralling Rd. Trail to be located on Youralling Rd.
Dale Corberding Rd
McGrath Rd
Road reserve exists on east side of railway, south of McGrath Rd
Roses Rd
Youralling Rd
Trail could be aligned on road reserve on east side of railway from McGrath Rd to Brookton.
Great Southern Hwy
Maintenance track between railway crossing on Youralling Rd and McGrath Rd (3,400m) is on Youralling Rd. No new trail construction is required.
Brookton Corri
Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.
Shire of Brookton
Pingelly
SHIRE OF CUBALLING
Shire of Narrogin
August 2025
Beverley to Narrogin Transport Trail
Plan 1 - Shire of Beverley


No existing crossing of railway
Yenyenning Rd
No access across railway
Kokeby Rd
Dale
Road reserves adjacent to railway reserve start here
Discontinuous road reserves
Trail construction required along west verge of Great Southern Hwy.
A
Existing crossing of railway on Youralling Rd
No opportunity to access road reserves alongside railway until Youralling Rd crossing of railway.
Maintenance track between railway crossing and McGrath Rd is located on Youralling Rd. Trail to be located on Youralling Rd.
Dale Corberding Rd
McGrath Rd
Roses Rd
Road reserve exists on east side of railway, south of McGrath Rd
Youralling Rd
Great Southern Hwy
Trail could be aligned on road reserve on east side of railway from McGrath Rd to Brookton.
Maintenance track between railway crossing on Youralling Rd and McGrath Rd (3,400m) is on Youralling Rd. No new trail construction is required.
Brookton Corrigin Rd
Brookton
Shire of Brookton
Proposed trailhead (near old station)
Brookton Hwy
Yeo Rd
Maintenance track south of Brookton is in railway reserve as far as Point B. Approximately 3,700m of new trail required between Brookton and Point B.
Hall Rd
Great Southern Hwy
Point B to Point C. Approx. 1,780m. of new trail construction required.
Copping Rd
Some of road reserve being cropped
B
C
Point C to Point D. Approx. 1,300m of new trail construction required.
Walwalling Rd
D
McCabe Rd
20m bridge required (Keelocking Ck)
Kulyaling Rd
Point D to Point E. Approx. 2,750m of new trail construction required.
E
Bass
Kulyaling
Lamard Rd
Ford Rd
15m bridge required (Nimbedilling Ck)
F
Shire of Pingelly
Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.
Shire of Brookton
Pingelly
SHIRE OF CUBALLING
Shire of Narrogin
Beverley to Narrogin Transport Trail
Plan 2 - Shire of Brookton
August 2025


Brookton
Proposed trailhead (near old station)
Yeo Rd
Maintenance track south of Brookton is in railway reserve as far as Point B. Approximately 3,700m of new trail required between Brookton and Point B.
Hall Rd
Great Southern Hwy
Copping Rd
Some of road reserve being cropped
B
C
D
Walwalling Rd
McCabe Rd
20m bridge required (Keelocking Ck)
Kulyaling Rd
Bassendean Rd
Point E to Point F. Approx. 3,500m of new trail construction required.
E
Kulyaling
Moorumbine Rd
Lamard Rd
15m bridge required (Nimbedilling Ck)
Ford Rd
F
Shire of Pingelly
At Point G, trail uses road reserve (Marconi St to Review St).
Point G to Point H Trail uses town roads/paths
Existing Heritage Trail
Moorumbine
Aviation Rd
G
Several tracks in bushland reserve
Proposed trailhead (Pioneer Park)
Pingelly
H
I
Wickepin
Pingelly Rd
Point F to Point G. Approx. 4,400m of new trail construction required.
Point H to Point I. Trail would use local roads.
No road reserve on W side of railway
Road reserve discontinuous. Not connected at N end.
10m bridge required
J
Yenellin Rd
Point J to Point K. Approx. 3,200m of new trail construction required.
Point I to Point J. Approx. 3,000m of new trail construction required.
Thompson Rd
Zig Zag Rd
Point K to Point L. Approx. 1,290m of new trail construction required.
Hotham River
Treforts Rd
K
Karping Rd
L
30m bridge required (Hotham River)
Great Southern Hwy
Merwanga Rd
M
N
Point L to Point M. Approx. 2,300m of new trail construction required.
Point N to Point O. Approx. 3,300m of new trail construction required.
Point M to Point N. Approx. 800m. Gravel road. No new trail construction required.
Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.
Shire of Brookton
Shire of Pingelly
SHIRE OF CUBALLING
Shire of Narrogin
Beverley to Narrogin Transport Trail
Plan 3 - Shire of Pingelly
August 2025


Karping Rd
30m bridge required
(Hotham River)
Merwanga Rd
Great Southern Hwy
Point L to Point M. Approx. 2,300m
of new trail construction required.
Point M to Point N. Approx. 800m.
Gravel road. No new trail
construction required.
Point N to Point O. Approx. 3,300m
of new trail construction required.
10m bridge required
Williams Rd
Point O to Point P. Approx. 1,300m
of new trail construction required.
Popanyinning
Point P to Point Q.
Trail follows local roads/paths
within Popanyinning. At Point Q
Bayliss St intersects with Bunmulling Rd.
Point Q to Point R.
Trail follows local roads/paths
within Popanyinning. At R, railway
crosses to west side of highway.
Popanyinning Rd West
Existing network
of MTB trails.
Existing crossing of railway.
Shire of Cuballing
Forestry Rd
Point R to Point S. Approx. 5,500m
of new trail construction required.
Dents Rd
Existing crossing of railway.
30m bridge required
(Hotahm River South)
Point S to Point T. Approx. 3,000m
of new trail construction required.
Yornaning
Yornaning Rd
35m bridge required
(South Hotham River)
Point T to Point U.
Trail follows local roads/paths
within Yornaning.
Dryandra
Woodland
National Park
Point U to Point V. Approx. 3,500m
of new trail construction required.
Great Southern Hwy
Point V to Point W. Approx. 2,700m
of new trail construction required.
Johnston Rd
10m bridge required
(Watsons Brook)
Knights Lane
Point W to Point X. Approx. 1,200m
of new trail construction required.
Point X to Point Y.
Trail follows local roads/paths
within Cuballing.
Watsons Rd
Cuballing
Cuballing West Rd
Proposed trailhead
Wandering Narrogin Rd
Point Y to Point Z. Approx. 2,600m
of new trail construction required.
Springhill Rd
Chungamunning Rd
No parallel road reserves
in this location
Nebrikinning Rd
Point Z to Point AC. Approx.
3,300m (of the 5,670m)
new trail construction required.
Existing crossing
point of railway
Curtis Rd
Great
Plan prepared in colour and
at A3. Best viewed at A3 and
printed at A3 and in colour.
Beverley to Narrogin Transport Trail
Plan 4 - Shire of Cuballing
August 2025
Shire of Brookton
Pingelly
CUBALLING
Narrogin


Shire of Cuballing
Point R to Point S. Approx. 5,500m of new trail construction required.
Forestry Rd
Dents Rd
S
Existing crossing of railway.
30m bridge required (Hotahm River South)
Point S to Point T. Approx. 3,000m of new trail construction required.
T
U
Yornaning
Yornaning Rd
35m bridge required (South Hotham River)
Great Southern Hwy
Point T to Point U. Trail follows local roads/paths within Yornaning.
Dryandra Woodland National Park
Point U to Point V. Approx. 3,500m of new trail construction required.
Point V to Point W. Approx. 2,700m of new trail construction required.
Johnston Rd
V
10m bridge required (Watsons Brook)
Knights Lane
Point W to Point X. Approx. 1,200m of new trail construction required.
Point X to Point Y. Trail follows local roads/paths within Cuballing.
Watsons Rd
W
Cuballing
X
Proposed trailhead
Cuballing West Rd
Y
Wandering Narrogin Rd
Point Y to Point Z. Approx. 2,600m of new trail construction required.
Springhill Rd
Chungamunning Rd
Z
No parallel road reserves in this location
AA
Nebrikinning Rd
AB
Point Z to Point AC. Approx. 3,300m (of the 5,670m) new trail construction required.
Existing crossing point of railway
Curtis Rd
Pritchard Rd
Farrelly Rd
AC
Great Southern Hwy
Higham Rd
Congelin Narrogin Rd
Shire of Narrogin
Point AD to trailhead. Use existing roads/paths of Narrogin townsite.
AD
Point AC to Point AD (approx. 4,050m). Majority of maintenance track within road reserve. Approximately 750m of new trail construction required.
Narrogin
Trailhead Narrogin Visitor Centre
Williams Narrogin Rd
Proposed Narrogin Williams Rail Trail
Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.
August 2025
Beverley to Narrogin Transport Trail
Plan 5 - Shire of Narrogin
Shire of Brookton
Pingelly
Cuballing
Narrogin

7. How would you use the trail you selected above in Q 6

- ◯ Section by section (i.e. short rides and walks between the towns and villages possibly returning on the same route)
- ◯ As a loop returning to your point of departure – using both green and orange routes
- ◯ End to end - green route only
- ◯ End to end - orange route only
- ◯ End to end - combination
- ◯ End to end and return - green route only
- ◯ End to end and return - orange route only
- ◯ End to end and return - combination

8. If a trail was developed between Beverley and Narrogin, how often might you use some or all of it

- ◯ Every day
- ◯ Once a week
- ◯ Once a month
- ◯ A few times per year
- ◯ Rarely
- ◯ Never

9. Do you have any specific suggestions for the design of the proposed Transport Trail between Beverley and Narrogin

10. Do you have any suggestions for the name of the trail if it is to developed

To ensure we get a representative cross-sample of the population of this region, it would be appreciated if you completed the following questions.

11. What is your postcode?

12. What is your age group?

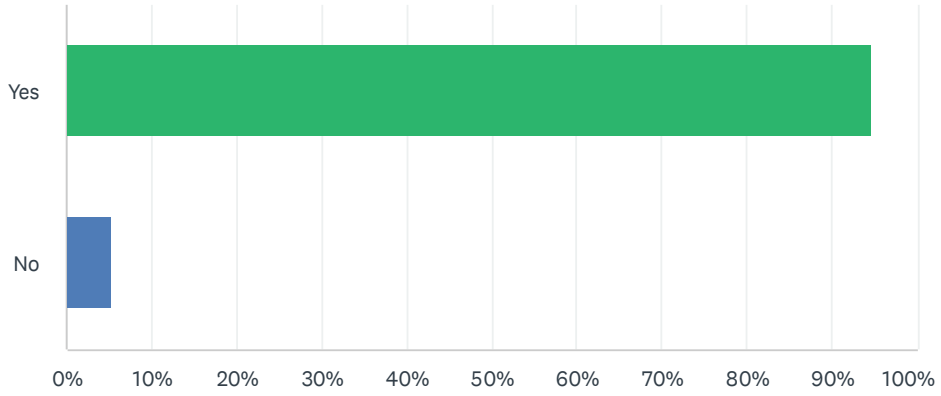
- ◯ Under 18
- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55-64
- ◯ 65+
- ◯ Prefer not to say

13. What is your gender?

- ◯ Male
- ◯ Female
- ◯ Non-binary
- ◯ Prefer not to say

Q1 Do you own a bike

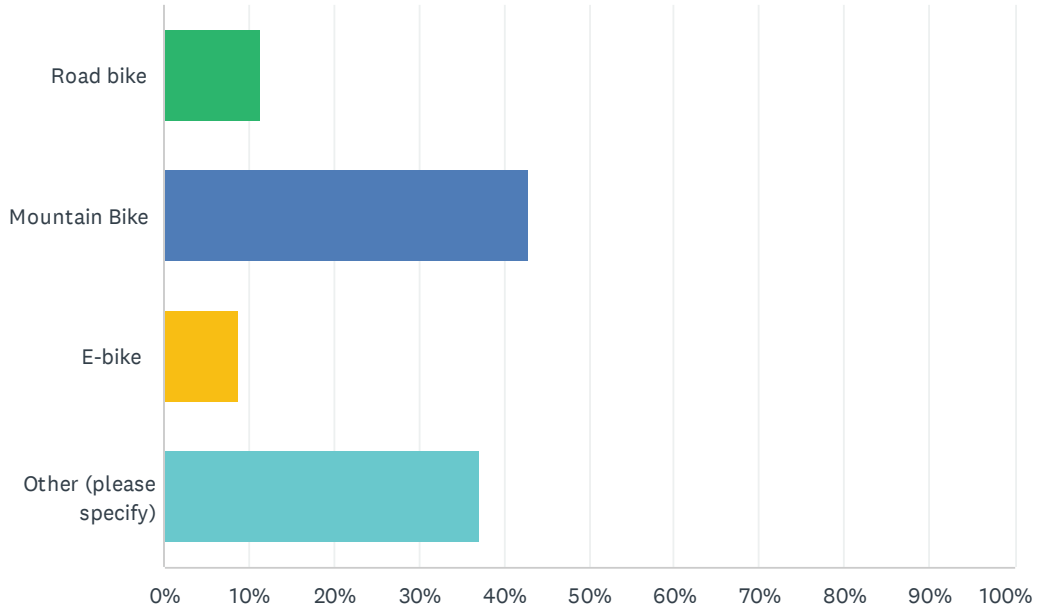
Answered: 371 Skipped: 4



ANSWER CHOICES	RESPONSES	
Yes	94.61%	351
No	5.39%	20
TOTAL		371

Q2 If so, what type of bike

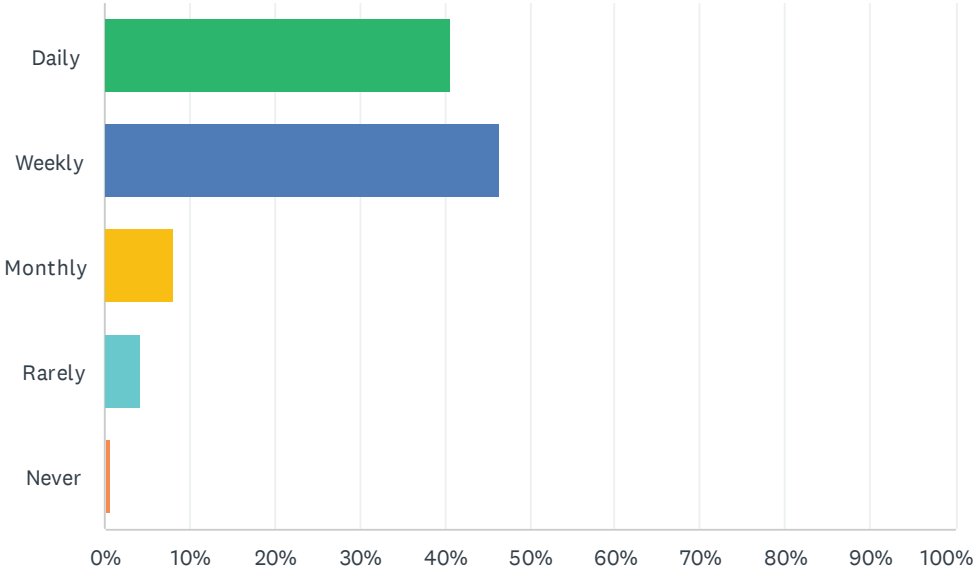
Answered: 354 Skipped: 21



ANSWER CHOICES	RESPONSES	
Road bike	11.30%	40
Mountain Bike	42.94%	152
E-bike	8.76%	31
Other (please specify)	37.01%	131
TOTAL		354

Q3 How often do you ride a bicycle or take a long walk/ride?

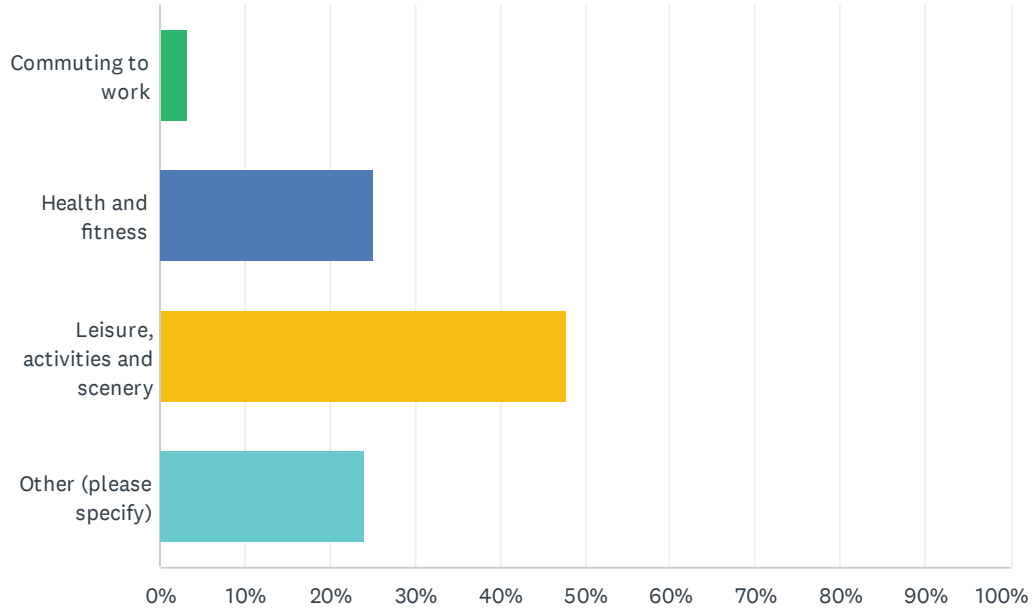
Answered: 373 Skipped: 2



ANSWER CHOICES	RESPONSES	
Daily	40.75%	152
Weekly	46.38%	173
Monthly	8.04%	30
Rarely	4.29%	16
Never	0.54%	2
TOTAL		373

Q4 What are the reasons you ride or walk?

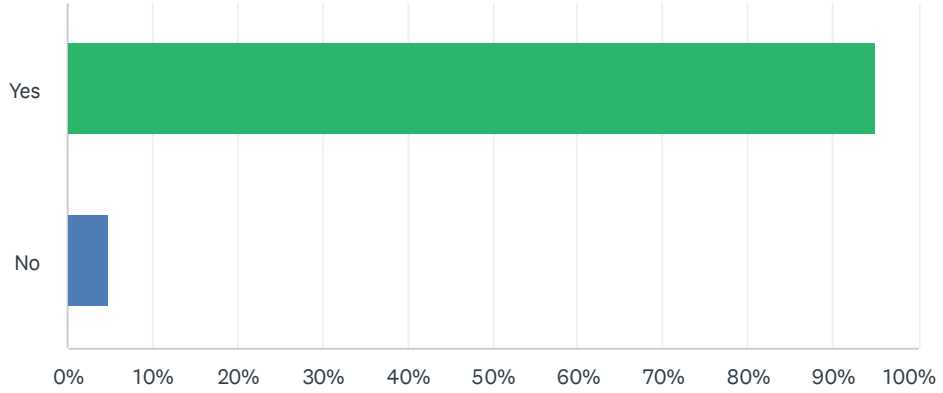
Answered: 371 Skipped: 4



ANSWER CHOICES	RESPONSES	
Commuting to work	3.23%	12
Health and fitness	25.07%	93
Leisure, activities and scenery	47.71%	177
Other (please specify)	23.99%	89
TOTAL		371

Q5 Would you enjoy the potential to travel between the towns along the highway from Beverley and Narrogin, on a trail that takes you off the Great Southern Highway?

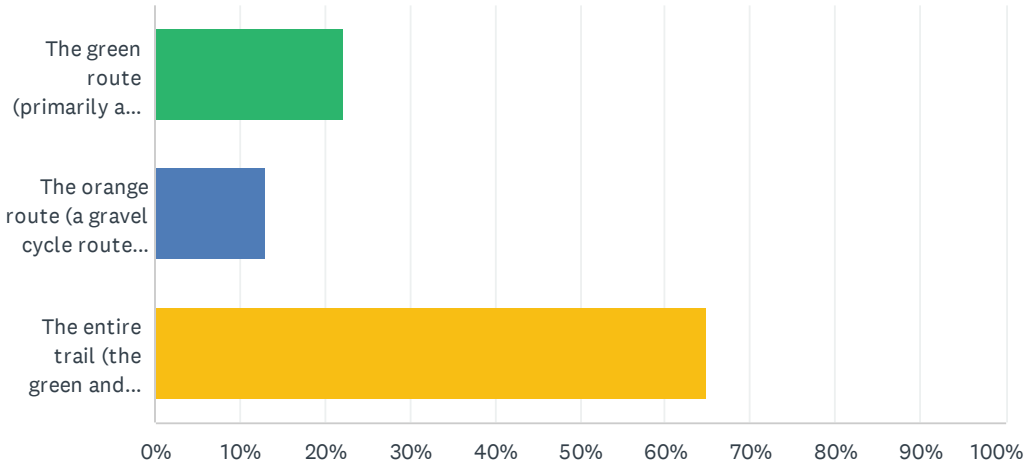
Answered: 373 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	95.17%	355
No	4.83%	18
TOTAL		373

Q6 The green and orange routes (shown on maps on the following pages for each Shire) are proposed as one trail with two different elements. Would you be more likely to use (please tick one):

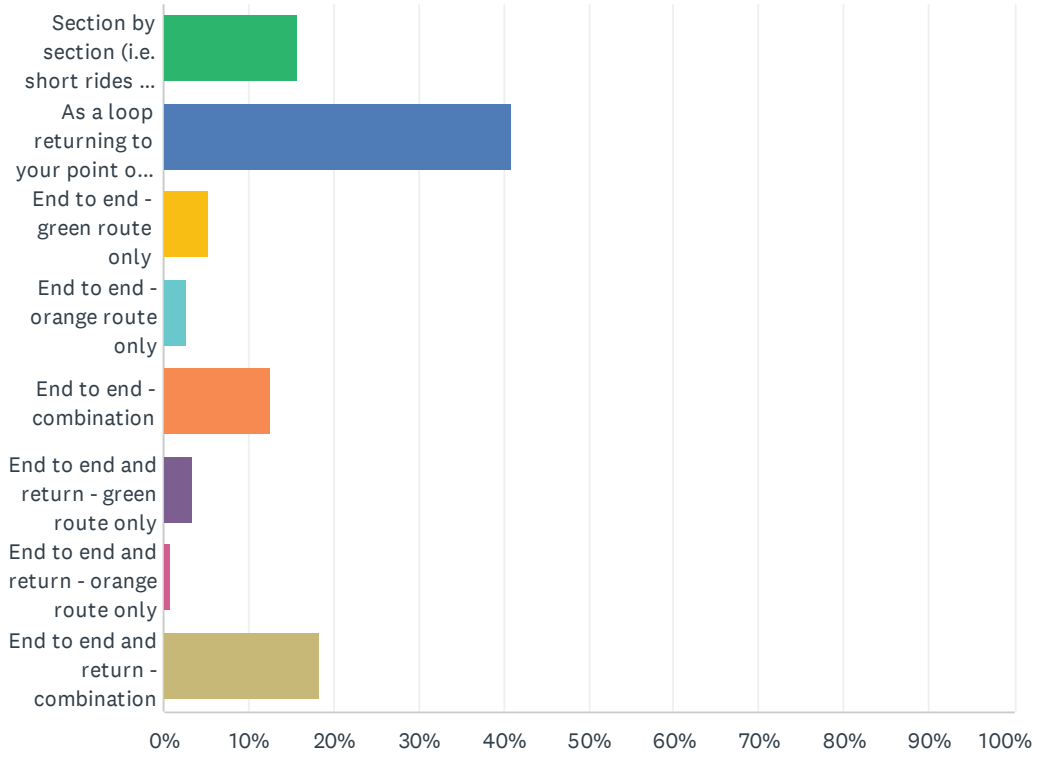
Answered: 356 Skipped: 19



ANSWER CHOICES	RESPONSES	
The green route (primarily a cleared narrow trail alongside the railway line and highway in some places)	22.19%	79
The orange route (a gravel cycle route using quiet country roads)	12.92%	46
The entire trail (the green and orange routes)	64.89%	231
TOTAL		356

Q7 How would you use the trail you selected above in Q 6

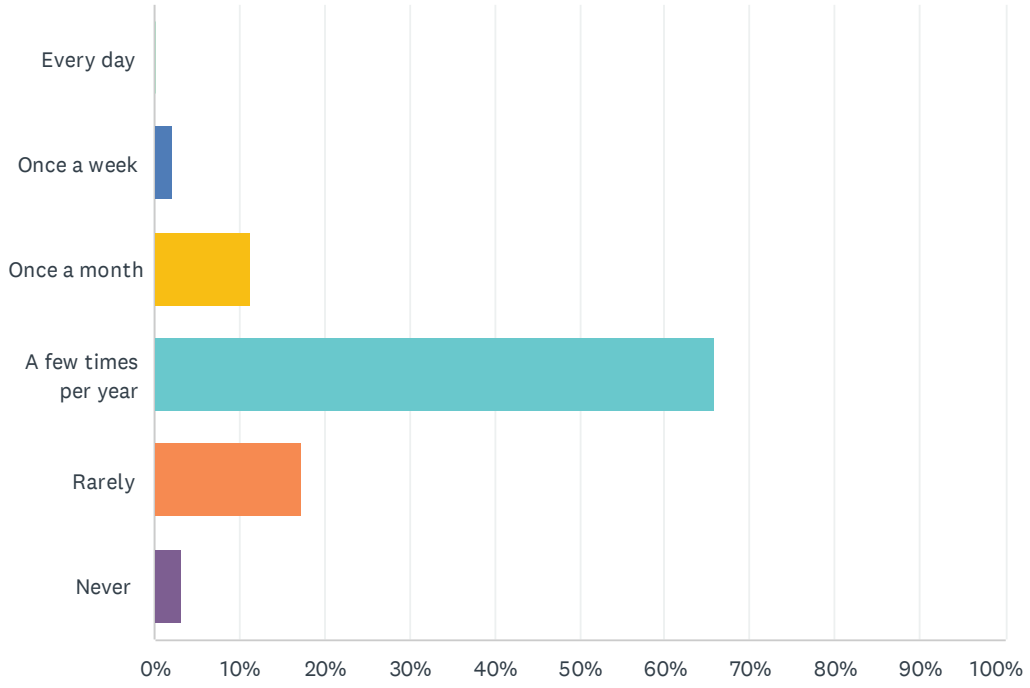
Answered: 359 Skipped: 16



ANSWER CHOICES	RESPONSES	
Section by section (i.e. short rides and walks between the towns and villages possibly returning on the same route)	15.88%	57
As a loop returning to your point of departure – using both green and orange routes	40.95%	147
End to end - green route only	5.29%	19
End to end - orange route only	2.79%	10
End to end - combination	12.53%	45
End to end and return - green route only	3.34%	12
End to end and return - orange route only	0.84%	3
End to end and return - combination	18.38%	66
TOTAL		359

Q8 If a trail was developed between Beverley and Narrogin, how often might you use some or all of it

Answered: 372 Skipped: 3



ANSWER CHOICES	RESPONSES	
Every day	0.27%	1
Once a week	2.15%	8
Once a month	11.29%	42
A few times per year	65.86%	245
Rarely	17.20%	64
Never	3.23%	12
TOTAL		372

Q9 Do you have any specific suggestions for the design of the proposed TransportTrail between Beverley and Narrogin

Answered: 211 Skipped: 164

Q10 Do you have any suggestions for the name of the trail if it is to developed

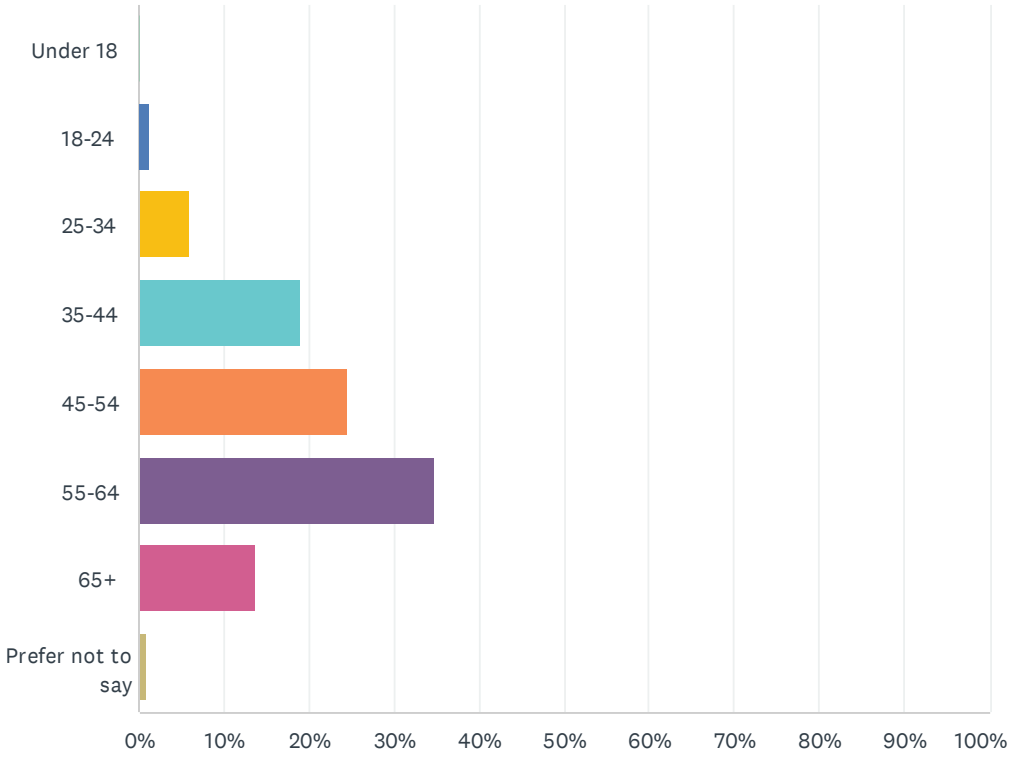
Answered: 167 Skipped: 208

Q11 What is your postcode?

Answered: 366 Skipped: 9

Q12 What is your age group?

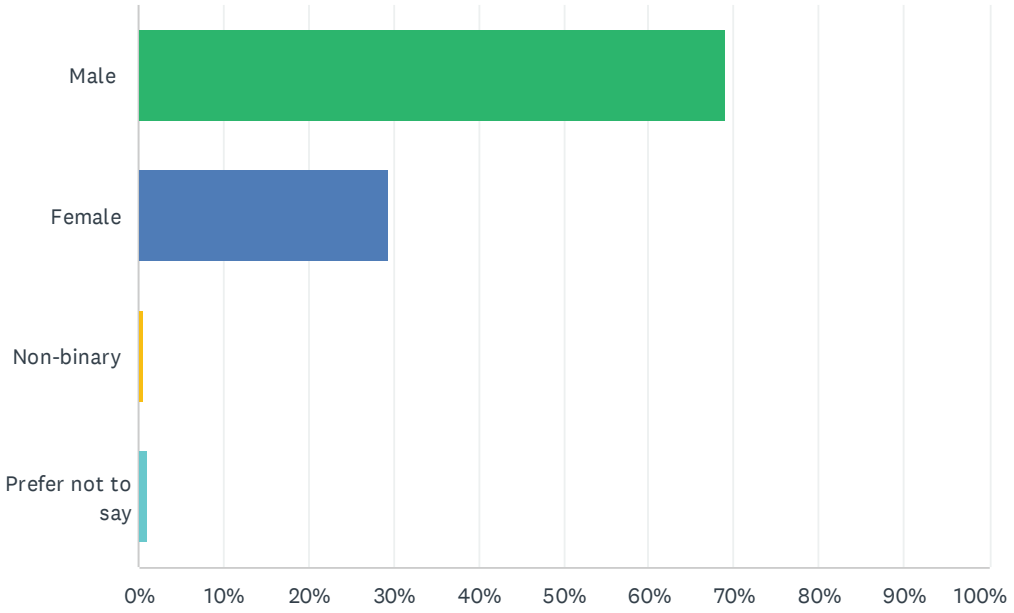
Answered: 375 Skipped: 0



ANSWER CHOICES	RESPONSES	
Under 18	0.27%	1
18-24	1.33%	5
25-34	5.87%	22
35-44	18.93%	71
45-54	24.53%	92
55-64	34.67%	130
65+	13.60%	51
Prefer not to say	0.80%	3
TOTAL		375

Q13 What is your gender?

Answered: 374 Skipped: 1



ANSWER CHOICES	RESPONSES	
Male	68.98%	258
Female	29.41%	110
Non-binary	0.53%	2
Prefer not to say	1.07%	4
TOTAL		374

Suggestions for trail design (grouped together as far as possible)	Number of people making suggestion (211 responses – some of these said they had no suggestions; some had multiple suggestions)
Trail facilities en-route	
Clear signage and GPS maps. Water (tanks was one suggestion) and shelter/shade stops provided and shown on the map. Seats. Needs to be available in apps. Shade and seats. Sign posting similar to the Munda Biddi Trail at every direction change (although one respondent suggested keeping signage to a minimum as all users have apps). An App showing bicycle/walking friendly accommodation. Bins and toilets. Picnic tables. Good signposting on roads for both user and driver.	40 (in total making the range of suggestions)
Have rest huts for overnighter (similar to Bibbulmun Track and Munda Biddi Trail) with water reservoir and camping options. Have some businesses support with spares, accessories, bed and breakfast, dinner at pubs.	19 2
Short stay bike friendly accommodation.	1
Secure parking at end points; secure bike racks or sheds at pubs and shops with security cameras; adequate bike parking in each town.	6
Consider charging facilities for ebikes to enable all riders.	3
Interpretive signage (including Aboriginal perspectives)/public art/features such as rail wagons or apps offering historic information.	5
End of trip facilities are important.	2
Bike wash down, repair stands and possibly storage would be great.	1
Check phone coverage.	1
Route surfacing and width	
Not too narrow....wide enough for 2 way traffic and for cyclists to pass walkers; also better for maintenance.	3
Opposite: lots of support for single track – scenery and maintenance considerations. Also one respondee- Please do not make the mistake of using mostly doubletrack, the Munda Biddi in comparison the Bibbulmun is a poor example of "for bikes" compared to "for walkers". Singletrack and epic singletrack is what will put this trail on a World map for riders. Some sections of the Munda Biddi are excellent single track but as an "epic trail" it is let down hugely by the amount of doubletrack (backroads - gravel roads) that it uses.	
Single track through bushland is king for attracting adventure cyclists and bike packers.	1

Also support for- similar to Munda Biddi- with variety of single track and wide trails.	1
Hard gravel.	1
Essentially gravel away from traffic.	4
Limestone or gravel base over existing access roads and trails where possible.	1
Route selection	
Several responses covered away from roads; safe; not technically complex.	
Several responses covered matters such as use the river, use the railway maintenance track etc.	
As an experienced bike packer. The trail needs to offer a unique experience, good views where possible and shading during the warmer months. Don't forget the rider experience is the most important aspect. The trail will be under utilised if the experience of the user is poor.	1
Pick up as many areas of high scenic quality as possible.	2
Limit road crossings.	3
Separated from the road and avoid hills where possible.	4
Varied but not too technical. Takes in points of interest... historical, cultural, geographical.	1
Incorporate and highlight elements of nature, towns and history that the trails flow through.	1
Make suitable for access. Link up with public facilities so that groups can hold events and use the trails.	1
Best tracks are those that make you feel like you are in the wilderness. It's surprising that you don't need to be far away from a road to get a feeling that you are miles from one.	1
Would like to ensure the old town of Moorumbine/Mourambine is included so that various landmarks sites (Atkins cottage, St Patrick's church etc) are incorporated on the trail.	1
Include Yornaning tracks.	1
Plan for a branch to Boyagin Rock and another to the Lions Dryandra village with signage (and other signage to areas of interest non-locals would not be aware of).	1
Incorporate river pools where can be done.	1
Include an icecream shop; route past cafes.	2
Corners and slopes to accommodate tandem bicycles.	1
Flowing technical sections along green trail but still align with green trail rating.	1
I hope it takes in forest land. Not keen on riding past miles of paddocks and wheat crops.	1
Loops a good idea esp. for walkers with a 25km circuit.	1

Route selection based on rider safety first. Go where there is less chance of getting killed. Don't expect a survey to make the route selection decisions.	1
Ensure the trail quality is prioritised rather than just getting from A to B and putting it on the side of a highway.	1
Concerns over the shared traffic on Yenyening Lakes Road and Patten Rd – heavy with clay and slippery. This small section generally turns to a dangerous slippery road after any 5mm plus rainfall event – *comment: dealt with by change of route.*	2
Consider the dangers and unpleasantness of the unsealed "quiet" country Road sections. A lot of these roads are extremely dusty most of the year and these are frequented by all nature of commercial and agricultural traffic. Especially Moorumbine Road between East Pingelly and Brookton- heavy agricultural traffic is on this road as it is the main route to the CBH Bin and Heavy Machinery Sheds in Brookton from East Pingelly and Wickepin. Additionally, firearms are frequently used on the properties that border the proposed orange route. It is extremely unlikely that anyone would be accidentally harmed, however the sound of firearms may concern route users who are not used to the rural environments. It would be a good idea to have signage at main access points to the route that firearms are used on properties and not to be alarmed.	1
Preference is to persevere with gaining access for use of the railway reserve and that the railway reserve and river be used for the Beverley section of the transport trail. The green and orange routes proposed in the Feasibility for the Beverley Shire are not supported. Bremner Road is not a quiet country road. It is a relatively busy feeder road into town and is also used by agricultural machinery and equipment more often than the suggested Harvest Oct-Dec and Seeding Apr-May. It is dangerous for cyclists and pedestrians to be using that road as it has hills/crests reducing visibility as to what/who is coming, vehicles come up very quickly, and the road reserve is not wide enough for an additional track alongside. Also passing traffic adds risk to biosecurity and theft etc. *comment: dealt with by change of route.*	11 (some suggested using the railway infrastructure as an option to get trail in place quicker; many singled out Bremner Rd/Street as a poor option)
Follow Great Southern Highway.	1
Models	
Munda Bidi route/Bibb Track works well. Follow their lead and you won't do too much wrong.	5
Similar to Kep Track/Darkan Track.	2
Maintenance	
Ensure it is well maintained.	1
Volunteer caretakers for track sections similar to Cape to Cape.	1

Wide enough for a quad bike or ute to do spraying for weeds and clear debris.	1
Promotion	
You could market it with possibly an annual bike run.	1
Start small with an annual bike festival of some sort.	1
Combined marketing effort with other trails.	1
Promote the idea by using the many examples throughout the world.	1
Connections	
It would be so good if a train went to the start of the trail. Public transport or bike accessible from Perth.	3
Circular link to Bibbulmun and/or Munda Biddi.	3
User groups	
Make it available for horse riders.	3
Make it available for off road motorbikes.	1
Make it bike only.	1
Make it suitable to travel with pets.	1
Concerned about maintenance, rubbish and unwanted intruders.	1
Process (consultation and trail planning and implementation)	
Follow the 8 step process for trails planning as set out by DBCA or you will stuff it up.	1
Commit fully to doing it or not at all.	1
Keep it simple use existing trails and gravel roads and then progressively upgrade to single track over time.	1
A better survey allowing multiple options.	1
Other comments	
Public transport options to return to vehicle for end to end trips.	1
It would be good if there is a road/track between Narrogin and Boddington.	1
Select one area and make a bike park not a transport trail.	1
Several responses supported the trail in general.	

Suggested name/other comment (grouped for similarity)	Number of people making suggestion (167 responses – some of these said they had no suggestions)
The Wheatbelt Cycling Trail	2
The Wheatbelt Cycle Path/Way	3
The Wheatbelt Way	6
Wheatbelt Riders	1
The Wheatbelt Wanderer	4
The Wheatbelt Gravel Trail	1
The Western Wheatbelt Ripper	1
The Wheat and Bleat Trail	1
The Western Wheat Ride	1
The Wheatbelt Fitness Trail	1
Wheatbelt Rail Trail (or something that is relevant to the district, so as interstate or overseas visitors know where it is)	3
Rails to Trails - Wheatbelt Line	1
WA Wheatbelt Track	1
Wheatbelt Wander Wonder	1
Wander the Wheatbelt	1
Wheatbelt Wonder Trail	1
Something to do with stage coach or wheatbelt	1
"Something" Rail Trail	2
Golden Canola Trail	1
The Lupin Loop	1
South West Loop	1
Great South Trail	1
Great Southern Rail Trail	1
Great Outback Trails	1
Upper Great Southern Chungamunney track	1
WA Country Roads	1
The Great West Loop	1
Beverley to Narrogin Bike Trail	1
Beverley to Narrogin Trail	1
Narro Bevy Trail	1
Bevergin or Naverley Trail	1
Wanderly Bevergin Narroly	1
Beverley and Narrogin interconnect for the Munda Biddi and Bibbulmun Track	1
Beverley Narrogin Transport Trail. Non cyclists will understand it. Avoid indigenous names as less able to recall the name. Needs to be pronounced and easy to remember	2

Beverley Narrogin Trail	1
The Numbat Trail	1
The Possum Trail	1
The Redback Trail	1
The Quinda Trail	1
Something related to the fauna and flora of the region	2
Something in the local aboriginal language; chosen by local aboriginal people would be awesome; acknowledge First nations' history; fits with Munda Biddi and Bibbulmun; Noongar word for the area or connecting towns	36
Short aboriginal name - meaning Trail, Leisure, Scenery, Bike & Walk Trail	1
The Woylie Trail (respondent thought the Woylie was native to the area)	1
Yongar Trails. Kangaroo Trails	1
Avon Noongar (Wiilman / Ballardong) Numbat Dryandra	1
Ballardong Balarde	1
Wiilman Country Trail	1
Balancing Wilman Trail	1
Djilba Biddi – Spring Path or Wandoo Biddi	1
Koorliny - Noongar word for journey/ moving / travel	1
Ballar-Wiil Boodja Trail	1
find a good Wilman name - unless there is some connection with other historical passages through the area (e.g. when Roe came through etc)	1
It appears to be mostly in Ballardong country? If that's right, the name should refer to this, subject to the authorization and involvement of the traditional owners. Indeed, telling the story of the aboriginal heritage of the area could be a valuable addition to the overall tourism experience.	3
Something that connects with the cycling race of many years ago old race that used to happen - Beverley to Perth	1
The Pioneer Way	1
Something to do with Albert Facey	1
Ask farmers and local indigenous people/reflect farming and indigenous history	4
Something local/of relevance to the area would be nice	4
Just not Aboriginal	2
Section names. The Woylie Trail - Beverly to Brookton sections. The Black-flanked Rock-wallaby Trail - Brookton to Pingelly sections. The Ground Parrot Trail - Pingelly to Cuballing sections. The Bilby Trail - Cuballing to Narrogin sections.	1

Rusty Nail Trail	1

APPENDICES

APPENDIX 3: ORANGE ROUTE: SIGN LOG

#	Intersection	Sign required *(D/S – double-sided* *S/S – single-sided* *RT – right turn* *LT – left turn* *SA – straight ahead)*
	Shire of Beverley	
1	Trailhead at Beverley. Developed between Lukin St and the Avon River	1 x trailhead map panel D/S Chevron – trailhead S/S shield – RT arrow
2	Corner Lukin St and Nicholas St, Beverley	D/S shield – SA arrow (x 2)
3	Corner Bremner Rd and unsealed gravel road (GPS reference 32 8.587 S, 116 58.459 E)	D/S shield – SA arrow (x 2)
4	Corner Bremner Rd and Kokeby East Rd	D/S shield – RT arrow; LT arrow
5	Kokeby East Rd and Great Southern Highway	S/S shield- SA arrow S/S shield – SA arrow (on different sides of intersection)
6	Dale Kokeby Rd and Carrs Rd	D/S shield – SA arrow (x 2)
	Shire of Brookton	
7	Dale Kokeby Rd and Corberding Rd	S/S shield- RT arrow S/S shield – LT arrow (on different sides of intersection)
8	Corberding Rd and Roses Rd	D/S shield – RT arrow; LT arrow
9	Roses Rd and Youraling Rd	D/S shield – RT arrow; LT arrow
10	McGrath St and Corberding Rd, Brookton	D/S shield – RT arrow; LT arrow
11	Corberding Rd and Gaynor St, Brookton (travel down western side of Memorial Park)	D/S shield – RT arrow; LT arrow
12	Gaynor St and Brookton Hwy, Brookton	S/S shield- LT arrow S/S shield – RT arrow (on different sides of intersection)
13	Brookton Hwy and Robinson Rd, Brookton	S/S shield- LT arrow S/S shield – RT arrow (on different sides of intersection)
14	Robinson Rd and Trailhead, Pioneer Park	1 x trailhead map panel D/S Chevron – trailhead D/S shield – RT arrow: LT arrow
15	Robinson Rd roundabout	S/S shield – RT arrow (on north east side of roundabout)

		S/S shield – LT arrow (between railway track and roundabout)
16	Robinson Rd and Williams St/Great Southern Hwy	D/S shield – RT arrow; LT arrow
17	Williams St/Great Southern Hwy and Tiller St	D/S shield – RT arrow; LT arrow
18	Closed road on Tiller St	S/S shield- SA arrow S/S shield – SA arrow (on different sides of closed section)
19	Tiller St and Bodey Rd	D/S shield – RT arrow; LT arrow
20	Bodey Rd and Hall Rd	D/S shield – RT arrow; LT arrow
21	Hall Rd and Copping Rd	D/S shield – RT arrow; LT arrow
22	Copping Rd and Walwalling Rd	D/S shield – RT arrow; LT arrow
23	Walwalling Rd and Glenester Rd	D/S shield – SA arrow (x 2)
24	Walwalling Rd and McCabe Rd	D/S shield – RT arrow; LT arrow
25	McCabe Rd and Page Rd	D/S shield – RT arrow; LT arrow
26	Page Rd and Avery Rd	D/S shield – SA arrow (x 2)
27	Page Rd and Kulyaling Rd West	D/S shield – RT arrow; LT arrow
28	Kulyaling Rd West and Great Southern Highway *Users travel 250m north along Great Southern Highway* Great Southern Highway and Kulyaling Rd	D/S shield – RT arrow; LT arrow D/S shield – RT arrow; LT arrow
Shire of Pingelly		
29	Kulyaling Rd and Ford Rd (and Bennier Rd)	D/S shield – RT arrow; LT arrow
30	Ford Rd and Bassendean Rd	D/S shield – RT arrow; LT arrow
31	Bassendean Rd and Moorumbine Rd	D/S shield – RT arrow; LT arrow
32	Moorumbine Rd and Aldersyde-Pingelly Rd	D/S shield – SA arrow (x 2)
33	Moorumbine Rd and Shaddick Rd	D/S shield – RT arrow; LT arrow
34	Shaddick Rd and Wickepin-Pingelly Rd	D/S shield – RT arrow; LT arrow
35	Wickepin-Pingelly Rd and Old Wickepin Rd	D/S shield – RT arrow; LT arrow
36	Giles Rd (Old Wickepin runs seamlessly into Giles) and Yenellin Rd	D/S shield – RT arrow; LT arrow
37	Yenellin Rd, Harper St and Bodey St , Pingelly	D/S shield – RT arrow; LT arrow
38	Sharow St, Bodey St and Overheu St, Pingelly	D/S shield – SA arrow (x 2)
39	In Pingelly town centre	

	Sharow St and Quadrant St Sharow St and Parade St Parade St and Pasture St Brown St and railway crossing	D/S shield – SA arrow (x 2) D/S shield – RT arrow; LT arrow D/S shield – RT arrow; LT arrow S/S shield- SA arrow S/S shield – SA arrow (on western side of railway line on north and south side of Brown St)
40	Pingelly Trailhead: Pioneer Park on Brown St *Users of the orange route share the green route from Pingelly trailhead to Zig Zag Rd*	1 x trailhead map panel D/S Chevron – trailhead
41	Great Southern Highway and Zig Zag Rd	D/S shield – RT arrow; LT arrow
42	Zig Zag Rd and Merwanga Rd	D/S shield – RT arrow; LT arrow
	Shire of Cuballing	
43	Merwanga Rd and Williams Rd	D/S shield – RT arrow; LT arrow
44	Williams Rd and Batts Rd (and connection)	D/S shield – RT arrow; LT arrow S/S shield- SA arrow facing users heading west on Williams Rd where Batts Rd comes in at an angle (250 m from right angle bend in Williams Rd)
45	Howard St and Francis St (Great Southern Hwy), Popanyinning	D/S shield – RT arrow; LT arrow
46	Great Southern Highway and Dowling St, Popanyinning	D/S shield – RT arrow; LT arrow
47	Popanyinning West Rd and Pennys Rd	D/S shield – RT arrow; LT arrow
48	Pennys Rd and Forestry Rd	D/S shield – RT arrow; LT arrow
49	Forestry Rd and Yornaning West Rd	D/S shield – RT arrow; LT arrow
50	Yornaning West Rd and Knights Lane	D/S shield – RT arrow; LT arrow
51	Knights Lane and unnamed unsealed road (GPS reference 32 46.763 S, 117 4.669 E)	D/S shield – RT arrow; LT arrow
52	Knights Lane and Cuballing West Rd	D/S shield – RT arrow; LT arrow
53	Campbell Rd and Great Southern Highway, Cuballing	D/S shield – RT arrow; LT arrow

54	Cuballing trailhead at Cuballing Youth and Community Park *Users of the orange route share the green route from Cuballing trailhead to Chungamunning Rd*	1 x trailhead map panel D/S Chevron – trailhead
55	Great Southern Highway and Chungamunning Rd	D/S shield – RT arrow; LT arrow
56	Chungamunning Rd and Springhill Rd	D/S shield – RT arrow; LT arrow
57	Springhill Rd and Wandering Narrogin Rd Users travel 260m north west along Wandering Narrogin Rd	D/S shield – RT arrow; LT arrow
58	Wandering Narrogin Rd and Nebrikinning Rd	D/S shield – RT arrow; LT arrow
Shire of Narrogin		
59	Nebrikinning Rd and Pritchard Rd	D/S shield – RT arrow; LT arrow
60	Pritchard Rd and Congelin Narrogin Rd	D/S shield – RT arrow; LT arrow
61	Congelin Narrogin Rd and Higham Rd	D/S shield – RT arrow; LT arrow
62	Higham Rd and Wandering Narrogin Rd *(users travel 200m north along Wandering Narrogin Rd)*	D/S shield – RT arrow; LT arrow
63	Wandering Narrogin Rd and Farrelly Rd	D/S shield – RT arrow; LT arrow
64	Farrelly Rd and Hillside Rd (maintenance track)	D/S shield – RT arrow; LT arrow
65	Hillside Rd and Golf Course Parade, Narrogin	D/S shield – SA arrow (x 2)
66	Earl St North and Clayton Rd, Narrogin	D/S shield – RT arrow; LT arrow
67	Clayton Rd and Federal St, Narrogin	D/S shield – RT arrow; LT arrow
68	Federal Rd (midpoint between Clayton Rd and Egerton St), Narrogin	D/S shield – SA arrow (x 2)
69	Federal Rd and Egerton St, Narrogin	D/S shield – RT arrow; LT arrow
70	At the pedestrianized railway crossing (Egerton St), Narrogin	D/S shield- LT arrow; RT arrow D/S shield – LT arrow; RT arrow (on either side of railway crossing point)
71	Narrogin Trailhead at Visitor Information Centre	S/S shield – SA arrow (on southern face leading out of trailhead) 1 x trailhead map panel D/S Chevron – trailhead
72	Install “cyclists on road” at intervals on all roads to be used	34

APPENDICES

APPENDIX 4: PLANS FOR THE PROPOSED BEVERLEY NARROGIN TRANSPORT TRAIL

Beverley to Narrogin Transport Trail

Plan 1 - Shire of Beverley

November 2025

Proposed Beverley to York Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Beverley

Proposed Beverley to Avondale Farm Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Trailhead (Apex Park)

Lukin Street

Waterhatch Rd

Shire of Beverley

Trail should use the proposed Commonage Trail when developed (detailed route planning and detailed cost estimates by others)

Proposed river crossing on Commonage Trail

Connection along public road reserve to proposed Commonage Trail will create a loop trail

Beverley Westdale Rd

Green route uses Vacant Crown Land (and other categories of reserves) along Avon River between Caudle Rd and Kokeby East Rd

Avon River

Bremner Rd

Proposed County Peak and Ski Lake Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Kokeby East Rd

See plan in report for details of proposed trail route through VCL and other reserves along Avon River south of Beverley

Road crossing of Kokeby East Rd

Kokeby

Patten Rd

Proposed County Peak and Ski Lake Transport Trail (ref. Avon Central Coast 2050 Cycling Strategy)

Trail construction required along eastern verge of Great Southern Hwy (approx. 3,000m)

Yenyening Lakes Rd

Road crossing of Yenyening Lakes Rd

Road crossing of Southern Branch Rd

Dale Kokeby Rd

Road crossing of Great Southern Hwy

Southern Branch Rd

Trail construction required along western verge of Great Southern Hwy (approx. 1,800m)

Crossing of railway (on existing controlled crossing)

Trail construction required along road reserve (west side of railway - 4,300m)

Location of existing road crossing of railway on Youraling Rd

Trail construction required along western verge of Youraling Rd (where possible - approx 3,100m)

Great Southern Hwy

Dale Corberding Rd

McGrath Rd

Roses Rd

Road crossing of Youraling road, McGrath Rd and railway (on existing crossing)

Youraling Rd

Trail construction required along road reserve (east side of railway - approx. 5,400m)

Shire of Brookton

Some of road reserve being cropped

Avon River

Bilya Rise

Brookton Corri

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

0 2 4

kilometres

TRANSPLAN PTY LTD Planning and Design

Mike Halliburton Associates

Shire of Beverley

Shire of Brookton Growing the Future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin

Dale Kokeby Rd

Road crossing of Great Southern Highway

Trail construction required along western verge of Great Southern Highway (approx. 1,800m)

Tenyening Lakes Rd

Southern Branch Rd

Crossing of railway (on existing crossing)

Trail construction required along road reserve (west side of railway - approx. 4,300m)

Location of existing road crossing of railway on Youraling Rd

Trail construction required along western verge of Youraling Rd (where possible - approx. 3,100m)

Great Southern Hwy

Dale Corberding Rd

200m boardwalk required

McGrath Rd

Roses Rd

Road crossing of Youraling road, McGrath Rd and railway (on existing crossing)

Youraling Rd

Trail construction required along road reserve (east side of railway - approx. 5,400m)

10m bridge required (Avon River)

Some of road reserve being cropped

Avon River

30m bridge required (Avon River)

Brookton Corrigin Rd

Road crossing of Great Southern Highway (within Brookton)

Shire of Brookton

Brookton

Trailhead (near old station)

Yeo Rd

Road crossing of Great Southern Highway and crossing of railway (on existing crossing - Yeo Rd)

Road crossing of Great Southern Highway and crossing of railway (on existing crossing) within Brookton

Brookton Hwy

Hall Rd

5m armoured crossing required (Wabbing Creek)

Great Southern Hwy

20m boardwalk required (Glenester Brook)

Copping Rd

Some of road reserve being cropped

Walwalling Rd

15m boardwalk required (Avery Brook)

Trail construction required along road reserve (east side of railway - Yeo Rd to Kulyaling - approx. 9,400m)

McCabe Rd

2 x 25m boardwalks required (Keelocking Creek)

10m boardwalk required

Kulyaling Rd

Road crossing of Great Southern Highway and railway (on existing crossing)

Kulyaling

Trail construction required along road reserve (west side of highway - approx. 3,000m)

Lamard Rd

Ford Rd

200m boardwalk required (Nimbediling Ck)

Shire of Pingelly

Road crossing of Great Southern Highway and railway (on existing crossing)

See plan in report for reccommended route into and through Brookton.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

0 2 4

kilometres

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Planning and Design

Mike Halliburton Associates
Trail Consultants

November 2025

Beverley to Narrogin Transport Trail

Plan 2 - Shire of Brookton

Shire of Beverley

Shire of Brookton
Growing the Future

Shire of Pingelly

SHIRE OF CUBALLING

Shire of Narrogin

Brookton

Trailhead (near old station)

Road crossing of Great Southern Highway and railway (on existing crossing - Yeo Rd)

5m armoured crossing required (Wabbing Creek)

20m boardwalk required (Glenester Brook)

Some of road reserve being cropped

15m boardwalk required (Avery Brook)

Trail construction required along road reserve (east side of railway - Yeo Rd to Kulyaling - approx. 9,400m)

2 x 25m boardwalks required (Keelocking Ck)

10m boardwalk required

Road crossing of Great Southern Highway and railway (on existing crossing)

Trail construction required along road reserve (west side of highway - approx. 3,000m)

200m boardwalk required (Nimbediling Creek)

Road crossing of Great Southern Highway and railway (on existing crossing)

Trail construction required along road reserve (east side of railway - approx. 4,400m)

Road crossing of Review St (within Pingelly)

Road crossing of Brown St (within Pingelly)

Road crossing of Great Southern Highway and railway (on existing crossing) within Pingelly

Trailhead (Pioneer Park)

Pingelly

Road crossing of Great Southern Highway

Trail to be constructed along western verge of Great Southern Highway (approx. 1,500m)

100m boardwalk required

Road crossing of Great Southern Highway and railway (on existing crossing)

10m bridge required (Mongebin Gully)

Trail construction required along road reserve (east side of railway - Thompson Rd to Treforts Rd - approx. 2,000m)

10m boardwalk required (Thompson Brook)

2 x 10m bridges required (Hotham River)

Trail construction required along road reserve (east side of railway - Treforts Rd to Popanyinning - approx. 9,800m)

Existing Heritage Trail

Moorumbine

Shire of Brookton

Shire of Pingelly

Hall Rd

Copping Rd

Walwalling Rd

McCabe Rd

Great Southern Hwy

Yeo Rd

Kulyaling Rd

Bassendean Rd

Kulyaling

Lamard Rd

Ford Rd

Moorumbine Rd

Aviation St

Pingelly Rd

Wickepin

Old Wickepin Rd

Yenellin Rd

Thompson Rd

Zig Zag Rd

Treforts Rd

Hotham River

Karping Rd

Merwanga Rd

See plan in report for reccommended route into and through Pingelly.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

0 2 4

kilometres

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Beverley to Narrogin Transport Trail

Plan 3 - Shire of Pingelly

Shire of Beverley

Shire of Brookton
Growing the Future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin

Trail construction required along road reserve (east side of railway - Thompson Rd to Treforts Rd - approx. 2,000m)

Treforts Rd

Karping Rd

Hotham River

Merwanga Rd

10m bridge required (Thompson Brook)

Great Southern Hwy

2x10m bridges required (Hotham River)

Trail construction required along road reserve (east side of railway - Treforts Rd to Popanyinning - approx. 9,800m)

Williams Rd

120m boardwalk required (unnamed creek)

Popanyinning

Road crossing of Great Southern Highway and railway (on existing crossing)

Popanyinning Rd West

Existing crossing of railway.

Trail construction required along road reserve (west side of railway - Popanyinning to Yornaning - approx. 8,900m)

Shire of Cuballing

Forestry Rd

Dents Rd

6m bridge required (Candy's Creek)

Existing crossing of railway

Existing armoured crossing (Hotham River South)

Yornaning Rd

Yornaning

10m boardwalk required (South Hotham River)

Great Southern Hwy

Dryandra Woodland National Park

Trail construction required along road reserve (west side of railway - Yornaning to Watsons Rd - approx. 7,000m)

Johnston Rd

Fill and pipes required (Watsons Brook)

Road crossing of Great Southern Highway and railway (on existing crossing)

Knights Lane

Cuballing

Hwy

Trail construction required along eastern verge of Great Southern Highway (approx. 840m)

Watsons Rd

Road crossing of Cuballing East Rd

Road crossing of Cuballing St

Trailhead (Community Park)

Cuballing West Rd

Wandering Narrogin Rd

Springhill Rd

Trail construction required along road reserve west side of railway (approx. 2,900m)

Road crossing of Great Southern Highway and railway (on existing crossing)

Roadside single track trail required (approx. 850m)

Chungamunning Rd

Road crossing of Chungamunning Rd and railway (on existing crossing)

Patmore Feeds

Trail construction required on western verge of Great Southern Highway (approx. 1,600m)

Trail construction required along road reserve (west side of railway)

Crossing of railway (on existing crossing)

Nebrikinning Rd

Existing crossing point of railway

Curtis Rd

0 2 4

kilometres

See plan in report for reccommended route into and through Cuballing.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

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Planning and Design

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Trail Consultants

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Beverley to Narrogin Transport Trail

Plan 4 - Shire of Cuballing

Shire of Beverley

Shire of Brookton
Growing the Future

Shire of Pingelly

Shire of Cuballing

Shire of Narrogin

Shire of Cuballing

Trail construction required along road reserve (west side of railway - Popanyinning to Yornaning - approx. 8,900m)

Dents Rd

6m bridge required (Candy's Creek)

Existing crossing of railway

Existing armoured crossing (Hotham River South)

Yornaning

Yornaning

10m boardwalk required (South Hotham River)

Great Southern Hwy

Dryandra Woodland National Park

Fill and pipes required (Watsons Brook)

Trail construction required along road reserve (west side of railway - Yornaning to Watsons Rd - approx. 7,000m)

Johnston Rd

Road crossing of Great Southern Highway and railway (on existing crossing)

Knights Lane

Cuballing

Watsons Rd

Trail construction required along eastern verge of Great Southern Highway (approx. 840m)

Road crossing of Cuballing East Rd

Cuballing West Rd

Wandering Narrogin Rd

Trailhead (Community Park)

Trail construction required along road reserve west side of railway (approx. 2,900m)

Springhill Rd

Road crossing of Great Southern Highway and railway (on existing crossing)

Roadside single track trail required (approx. 850m)

Chungamunning Rd

Road crossing of Chungamunning Rd and railway (on existing crossing)

Patmore Feeds

Trail construction required along road reserve (west side of railway - approx. 2,300m)

Trail construction required on western verge of Great Southern Highway (approx. 1,600m)

Existing road crossing of railway

Nebrikinning Rd

Pritchard Rd

Existing crossing point of railway

Curtis Rd

Great Southern Hwy

Farrelly Rd

Trail to be located on existing road on west side of railway south of Farrelly Rd

Higham Rd

Congelin Narrogin Rd

Existing road crossing of Farrelly Rd

Shire of Narrogin

Junction with Golf Course Pde

Existing crossing of railway (within Narrogin)

Road crossing of Clayton Rd (within Narrogin)

Road crossing of Federal St (within Narrogin)

Narrogin

Trailhead (Narrogin Visitor Centre)

Williams Narrogin Rd

Potential for connections further west, including to Collie Darkan Rail Trail

Proposed Narrogin Williams Rail Trail

0 2 4

kilometres

See plan in report for reccommended route into and through Narrogin.

Plan only shows locations of major works. See full report for details of these and all other recommended works.

Plan prepared in colour and at A3. Best viewed at A3 and printed at A3 and in colour.

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Beverley to Narrogin Transport Trail

Plan 5 - Shire of Narrogin

Bilya Rs

Bridge required
over Avon River

Youraling Rd / McGrath St

Corberding Rd

Brookton Highway

Koorrnong Dr

Great Southern Highway

Road crossing
(Great Southern Highway)

Robinson Rd

Proposed trailhead (near old station)

Brookton

Crossing of railway
(on existing crossing
within Brookton - Robinson Rd)

Road crossing
(Great Southern Highway)

Tiller St

King St

Great Southern Highway

White St

Road crossing
(Great Southern Highway)

Yeo Rd

Crossing of railway
(on existing crossing
within Brookton - Yeo Rd)

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Beverley to Narrogin Transport Trail

Plan 6 - Route through Brookton

Aviation St

Marconi St

Review St

Road crossing of
Review St (within Pingelly)

New trail through
reserve/open space

Road crossing of Brown St
(within Pingelly)

Road crossing of Great Southern
Highway and crossing of railway (on
existing crossing) within Pingelly

Brown St

Park St

Parade St

Trailhead
(Pioneer Park)

Sharow St

Bodey St

Pingelly

Existing road crossing
of Sharow St
(within Pingelly)

Quadrant St

Pitt St

Phillip St

Yenellin Rd

Road crossing of Great
Southern Highway

Paragon St

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November 2025

Beverley to Narrogin Transport Trail

Plan 7 - Route through Pingelly

Watsons Rd

Road crossing of Great Southern Highway and crossing of railway (on existing crossing)

Trail construction required along eastern verge of Great Southern Highway (approx. 840m)

Unconstructed road reserve

Corrie St

Cuballing St

Road crossing of Cuballing St

Carton St

Russell St

Road crossing of Cuballing East Rd

Cuballing East St

Derby St

Trailhead (Community Park)

Campbell St

Alton St

Trail follows existing paths along east side of Great Southern Highway

Darcy St

Road crossing of Great Southern Highway and crossing of railway (on existing crossing)

Springhill Rd

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Beverley to Narrogin Transport Trail

Plan 8 - Route through Cuballing

Golf Course Parade
Hillside Rd
Junction with
Golf Course Pde
Great Southern Hwy
Earl Street North
Road crossing of Clayton Rd
(within Narrogin)
Kipling St
Clayton Rd
Federal St
Existing crossing
of railway
(within Narrogin)
Williams Rd
Road crossing of Federal St
(within Narrogin)
Trailhead
(Narrogin Visitor Centre)
Narrogin
Forrest Rd
Herald St

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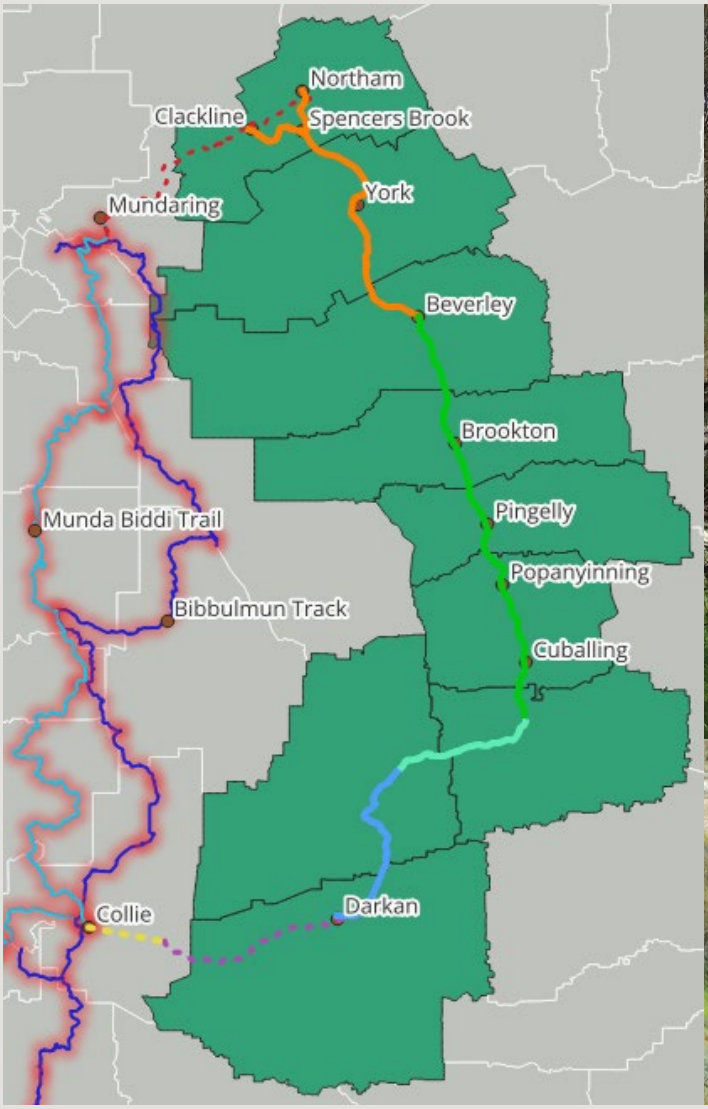
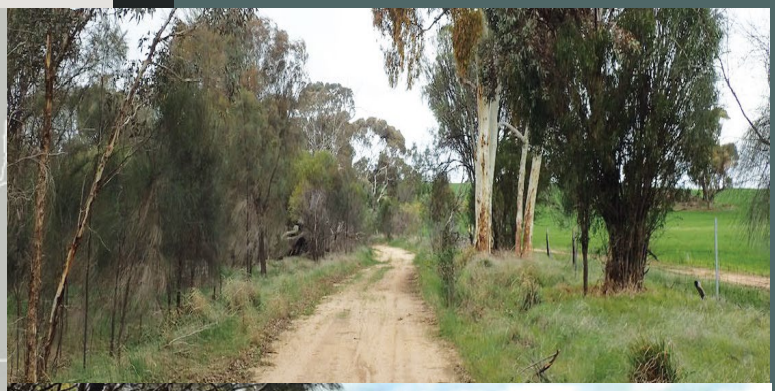
Beverley to Narrogin Transport Trail

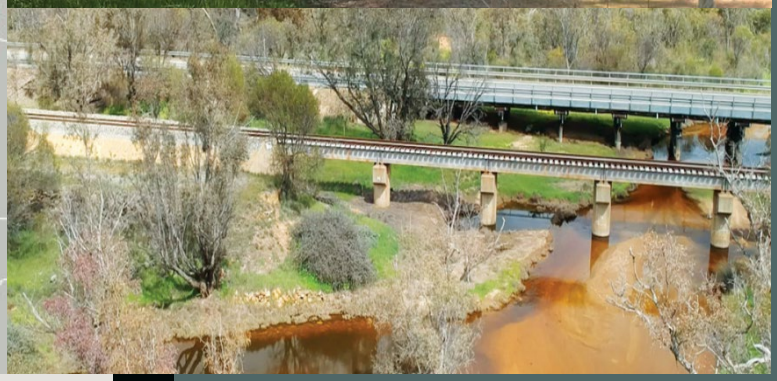
Plan 9 - Route through Narrogin

2026

Wheatbelt Rail Trail







Gemma Bassett

Broadview Consult Pty Ltd.

May 2026

Contents

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Report Figures

Report Tables

Report Version Control

Report Name	Version	Date Submitted	Author
Wheatbelt Rail Trail	V0 Draft	23rd March 2026	Gemma Bassett
Wheatbelt Rail Trail	V1 Final	11th April 2026	Gemma Bassett
Wheatbelt Rail Trail	V2 Final	15th May 2026	Gemma Bassett

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1 Executive Summary

This report presents a clear, forward-looking strategy to progress a connected Wheatbelt Rail Trail Network, consolidating the findings of four studies completed across 2008 to 2025, and translating them into a unified investment pathway.

The Vision, 'To create a connected loop trail from and to Perth through the Wheatbelt and South West, delivering regional and metropolitan benefits.'

The evidence across the studies is consistent, the Wheatbelt network represents a high-value, manageable opportunity to create a region defining tourism and active transport asset. The Beverley–Narrogin corridor is identified as the network backbone, proposed Stage 1, connecting the strongest trail towns and enabling staged expansion to Narrogin–Williams, Darkan–Williams, Collie Connection and York-Northam.

The project aligns strongly with multiple State strategies, frameworks and priorities for regional development, active transport, tourism and community wellbeing.

Indicative estimates show Stage 1, Beverley–Narrogin, at approximately $9.5M CAPEX and ~$0.26M OPEX per year. The full connected Wheatbelt Rail Trail, linking to the South West, is estimated at ~ $22.6M CAPEX and ~$.68M annual OPEX. If ARC[1] maintenance trails were accessible, Stage 1 costs may reduce by up to ~$6.8M CAPEX. By adding new regional loops, the Wheatbelt Rail Trail strengthens the Kep Track, Bibbulmun Track and Munda Biddi Trail and boosting visitation. A 10% usage uplift is estimated to deliver ~$6.7M per year.

To progress the project, this report recommends a staged, coordinated approach:

- **Phase 1 Establish Foundations -** Build unified cross-shire support, establish governance and program resourcing, and address early risks. Develop the ARC access case and create a consistent trail brand to position the project for coordinated progress.
- **Phase 2 Build the Investment Case -** Prepare a decision-ready funding package for targeted ministers, advance ARC access through a unified shire position, consolidate risks, and define the long-term network vision. Develop a staged funding pipeline aligned to State processes and investment pathways.
- **Phase 3 Build the Delivery Pipeline -** Coordinate engagement across agencies and partners, progress approvals and corridor access, and sequence delivery. Validate engineering, strengthen the economic case, and define long-term operations and maintenance to prepare for staged construction.

A clear decision is now sought from participating Shires to endorse a unified program approach and governance model, and from the State to support corridor negotiations and establish a funding pathway for staged delivery.

[1] ARC Infrastructure is a private company that leases, manages and operates WA's rail network.

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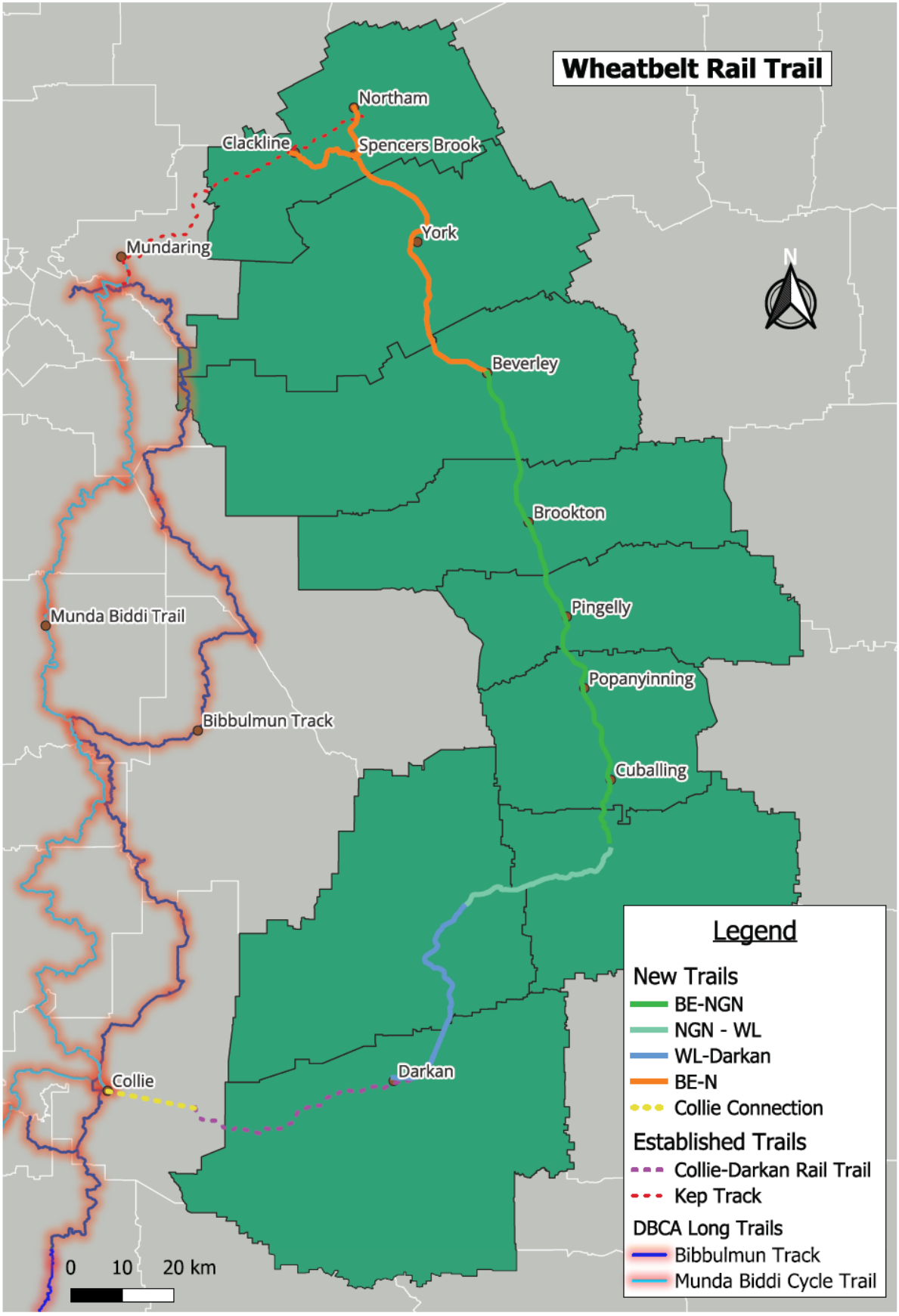

Figure 1 Wheatbelt Rail Trail - Combined Study Proposal

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2 Project Background

This report consolidates three rail-trail studies and one cycling network strategy completed between 2008 and 2025 to provide a unified, evidence-based case for major State Government investment to establish a Wheatbelt Rail Trail Network.

The studies reviewed include:

- **Avon Central Coast 2050 Cycling Strategy** (August 2023)
- **Narrogin–Williams Rail Trail Feasibility Study** (October 2024)
- **Beverley–Narrogin Transport Trail – Strategic Plan (Vol. 1)** (October 2025)
- **Beverley–Narrogin Transport Trail – Feasibility Study (Vol. 2)** (October 2025)
- **Darkan–Williams Rail Trail Feasibility Study** (November 2008)

The analysis identifies common themes, opportunities for development, indicative costs and emerging risks across the studies, with a focus on the Beverley–Narrogin rail-aligned (green) corridor and its role within the broader regional network.

It strengthens the regional development, economic, tourism, health and community benefits of both the Beverley–Narrogin corridor and the wider network, alongside the key constraints and opportunities for progressing cross-shire collaboration.

The report presents a clear, high-level funding case for State Government consideration and outlines the stakeholders required to advance a coordinated, multi-shire trail initiative.

3 Investment Business Case

3.1 Business Case

The Wheatbelt Rail Trail Network presents a significant opportunity to create a region-defining tourism and active-transport asset. By bringing together the findings of four cycling and rail-trail studies (2008–2025), this review demonstrates strong strategic need and clear regional and metropolitan benefits.

The Beverley–Narrogin corridor offers the potential to activate town centres, strengthen regional economies, and position the Wheatbelt as a nationally and internationally competitive cycling destination. The broader network (Avon Region) described across the studies further enhances regional connectivity, community wellbeing, and long-term economic resilience.

This business case establishes the strategic rationale for progressing a coordinated, cross-shire trail initiative that aligns with State priorities for tourism, regional development, active transport and community health.

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3.2 Funding Case Summary

The project presents a compelling case for State investment, offering a high-value, low-risk opportunity to deliver a region-shaping tourism asset with strong metropolitan access and measurable economic uplift across multiple towns.

A staged delivery approach, beginning with the Beverley–Narrogin corridor, provides the fastest, most cost-effective pathway to establishing a connected Wheatbelt Rail Trail network. This stage delivers immediate visibility, strong visitor demand potential, and clear alignment with State strategies for active transport, regional development, and the visitor economy.

The funding case highlights the value for money, the scalability of the network, and the key stakeholders required to advance a coordinated, multi-shire investment program.

3.3 Strategic Alignment

This project aligns strongly with six key State and Regional Strategies for cycling, regional development, health, tourism and destination management. It is further supported by three statewide frameworks, and one state commissioned methodology, that reinforce the value of safe, connected, nature-based regional trail networks.

3.3.1 Supporting Strategies

1. **Department of Transport's Long Term Cycle Network (LTCN)**
   - Delivers a designated Transport Trail linking six towns in Stage 1.
   - Strengthens the Avon Central Coast 2050 Cycling Strategy spine.
   - Provides a safe, accessible long-distance cycling corridor.
2. **Department of Local Government, Sport and Cultural Industries (DLGSC) Strategic Plan 2024–2029**
   - Strongly supports three of the five priorities – Connected communities, Prosperous Industries and Sectors, and Healthy Living:
     - Builds connected communities through shared recreation infrastructure.
     - Stimulates prosperous regional industries and tourism.
     - Promotes healthy living through active recreation.
3. **Department of Creative Industries, Tourism and Sports (CITS) WAVES 2033 – Western Australia Visitor Economy Strategy**
   - Creates a new nature-based hero experience for the Wheatbelt–Avon region.
   - Drives regional dispersal and multi-day visitation.
   - Supports tourism industry capability and new business opportunities.
4. **Wheatbelt Development Commission – Wheatbelt Regional Tourism Development Strategy 2023–2033**
   - Prioritises nature-based tourism, trails, and regional touring routes as key growth drivers.
   - Strengthens regional connectivity, visitor movement, and cross-shire collaboration.
   - Aligns with the region's 10-year goals for experience development, infrastructure investment, and industry capability.

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5. **WestCycle (with DLGSC & Department of Biodiversity, Conservation and Attractions (DBCA)) – WA Mountain Bike Strategy 2022–2032**
   - Supports the development of sustainable off-road cycling infrastructure across WA.
   - Strengthens WA's position as a national and international trail-based tourism destination.
   - Encourages regional trail networks that connect communities and diversify visitor experiences.
   - Aligns with State priorities for trail governance, environmental sustainability, and industry capability.
6. **Regional Development Australia (RDA) Strategic Plan – Wheatbelt 2025–2028**
   - Strengthens regional connectivity, liveability and economic diversification.
   - Supports cross-shire collaboration and region-shaping infrastructure.
   - Aligns with priorities for tourism development, active transport, and community wellbeing.
   - Reinforces the value of projects that enhance amenity, attract workforce, and stimulate local business.

3.3.2 Supporting Frameworks and Methodology

7. **WA Strategic Trails Blueprint 2022–2027 (DBCA & DLGSC)**
   - Provides the statewide vision for safe, connected, multi-day regional trail networks.
   - Reinforces the need for coordinated governance, consistent standards, and region-shaping trail experiences.
8. **More People More Active Outdoors (DLGSC, 2019)**
   - Defines the health, wellbeing, community and economic benefits of accessible outdoor recreation.
   - Supports investment in safe, inclusive, off-road infrastructure such as the Green Route.
9. **Australia's Golden Outback Strategic Plan 2021–2026 (AGO)**
   - Prioritises nature-based tourism, regional dispersal and multi-day touring experiences.
   - Supports cross-shire collaboration and experience development across the Wheatbelt.
10. **DLGSC – Concentric Circles - Guidance for Trails Tourism Close to Perth (2024)**
    - A State-commissioned, evidence-based method for understanding how Perth residents choose trail destinations.
    - Uses travel-time bands, 'concentric circles' to identify where trail investment delivers the strongest visitation uplift.
    - Identifies travel time as the strongest predictor of trail use, particularly for day-trip and short-break markets.

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- Demonstrates that trails located 60–120 minutes from Perth generate the highest tourism and recreation return on investment, such as the Wheatbelt Rail Trails.
- Highlights the importance of regional trail hubs with accommodation, hospitality and visitor services to support uptake.
- Emphasises the need for multi-shire coordination to avoid duplication and create coherent, market-ready trail networks.
- Identifies long-distance, signature experiences (including rail trails) as priority investment categories for attracting new markets.

The recommended staging approach commences with the Beverley–Narrogin **Green Route** because it:

- Delivers the safest, most inclusive off-highway corridor, directly supporting the LTCN, DLGSC recreation priorities, and statewide outdoor activity frameworks.
- Connects the largest cluster of towns, maximising early regional benefit, tourism dispersal and economic uplift.
- Provides the strongest strategic alignment across all State and regional strategies, including tourism, cycling, health, regional development and destination management.
- Establishes the governance, approvals and delivery model required for subsequent corridors, reducing risk and accelerating future stages.
- Aligns directly with the Concentric Circles methodology, sitting squarely within the high-value 60-120 minute Perth travel band and linking the region's most established trail towns, making it the highest-return corridor for early investment.

Further detail is provided in the 'Beverley to Narrogin' section of this report.

3.4 Regional Benefits

The Wheatbelt–Avon Regional Trail Network connects five Shires in Stage 1, and Nine Shires upon project completion. It strengthens regional tourism and small business growth, improves community health through accessible recreation, and supports local employment.

By transforming under-utilised rail corridors into vibrant public spaces and linking town centres via a safe, low-gradient cycling route, the project positions the Wheatbelt as a metro-accessible nature and heritage destination.

Each town can develop short loops, trailheads and local experiences that support daily community use and small business activation, complementing the broader regional tourism uplift.

Beverley, Brookton and Narrogin consistently emerge as the corridor's strongest tourism and service towns. With existing accommodation, hospitality and visitor services, they are natural hubs for early trail activation. Delivering Stage 1 along the Beverley–Narrogin corridor strengthens these towns first, enabling immediate regional spend and supporting small business growth.

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3.5 Metropolitan Benefits

The trail delivers significant metropolitan benefits despite being in regional WA. It is purpose-built for strong Perth uptake, offering a safe, low-gradient, family-friendly cycling and walking experience within easy day-trip reach of the city. It supports physical activity, nature-based recreation, and short-break tourism, while funnelling metropolitan visitation and spending into regional town centres and strengthening WA's portfolio of accessible outdoor experiences. The strong Perth usage of the Mundaring Trails network demonstrates the metropolitan demand for rail-trail and nature-based activities.

This network effectively opens the Wheatbelt and Avon to Perth in a way not previously possible. It creates a safe, inclusive, nature-based corridor where families, older adults, e-bike users, adventure cyclists, schools, and community groups can step into the bush for a day or overnight. It brings the regions closer to the city.

There is also a future opportunity for the proposed network to interface with Perth's Principal Shared Path (PSP) system as a high-quality, off-road metropolitan gateway. This would require separate planning, approvals and funding, and is not dependent on any on-road cycling connections.

The Concentric Circles framework confirms that Perth-accessible trails within 60–120 minutes deliver the highest visitation and participation uplift. The Wheatbelt Rail Trail corridor sits directly within this band, offering a safe, low-gradient, family-friendly experience that is uniquely positioned to attract strong metropolitan day-trip and short-break demand.

3.6 What This Means for Western Australia

A connected Wheatbelt Rail Trail network delivers a high-value, low-risk return for Western Australia, stronger regional economies, increased metropolitan visitation, improved health and wellbeing outcomes, and a region-defining nature-based tourism product aligned with State strategies.

Additionally, it has the ability to position WA as a national leader in accessible, long-distance cycling experiences, with future expansion opportunities.

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4 Study comparison

4.1 Comparative Summary

Table 1 Cross Study Comparison

Study	Shires	Distance (KM)	Scope & Purpose	Core Product
Avon Central Coast 2050 Cycling Strategy (2023)	Beverley York Northam Toodyay Chittering Gingin Dandaragan	~337 (via Road if completely linked)	Regional cycling network plan identifying primary/secondary routes, transport trails, and tourism corridors	Strategic framework for northern connections (Beverley–York–Northam–Toodyay–Perth Hills-Coastal Connections)
Beverley–Narrogin Transport Trail V1Strategic & V2 Feasibility (2025)	Beverley Brookton Pingelly Cuballing Narrogin	~101.1	Long-distance off-road transport trail linking six towns, Green (rail-aligned) + Orange (backroads) routes	Central Wheatbelt spine, major tourism and transport corridor
Narrogin–Williams Rail Trail Feasibility (2024)	Narrogin Williams	~34	Conversion of disused rail corridor into high-quality rail trail	Southern link with strong economic case and short payback period
Darkan–Williams Rail Trail Feasibility (2008)	Williams West Arthur	~47	Conversion of disused rail corridor into rail trail linking Williams to Collie–Darkan network*	Western link completing Collie–Williams–Narrogin loop

*Note Darkan-Collie Trail already exists. This Linkage would essentially expand the current 61.5 km easy (class 2) Trail, composed of Course gravel and compact earth.

In addition to the core corridor studies, two supplementary linkages should be recognised as supporting network connections:

- the Spencers Brook–Clackline spur, referenced in the *Avon Central Coast 2050 Cycling Strategy*, and
- the 'Collie Connection', identified in both the *Collie River Valley Trails Strategy* and the *Bunbury–Wellington 2050 Cycling Strategy*.

Both linkages strengthen the network by improving loop options, enhancing regional ride choices, and supporting overall network coherence. They are referenced here for context rather than full comparative assessment.

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4.2 Shared study benefits

Across all four studies, a consistent set of benefits emerged. The below distils these shared findings into the key themes, evidence and strategic implications relevant to the proposed Wheatbelt Rail Trail network.

1. **Tourism & Visitation**
    - All studies identify strong tourism potential.
    - BE–NGN survey shows 95% of respondents would use the trail.
    - NGN–WL forecasts 7,645 users per year, BE-NGN forecasts a conservative 12,645 users per year

Implication - High-value tourism product with strong metro-accessible demand.

2. **Economic Impact**
    - All studies identify strong economic uplift and increased tourism demand.
    - Economic benefits are quantified in the Estimated Financials section.

Implication - Strong ROI, supports small business, hospitality and accommodation.

3. **Health & Community**
    - Studies emphasise safe, off-road recreation.
    - Suitable for families, older riders and e-bikes.
    - Provides accessible recreation across multiple shires.

Implication - Broad community benefit and improved health and wellbeing.

4. **Regional Development**
    - Studies highlight the importance of cross-shire connectivity and the opportunity to develop the region through strong collaboration.
    - Strong support for town-to-town links and regional cohesion.

Implication - Creates a unified Wheatbelt–Avon regional network.

5. **Environmental & Cultural**
    - Opportunities for Noongar interpretation and cultural storytelling.
    - Supports heritage tourism and nature-based experiences.
    - Encourages environmental stewardship and low-impact recreation.

Implication – Strengthens and builds cultural tourism and environmental values.

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4.3 Risks and constraints

The five key risk categories identified across the studies are:

1. **Corridor and tenure (ARC Infrastructure / PTA[2])**
    - Requires early coordinated corridor negotiations, clear approvals pathway and consistent access policy.
2. **Cost escalation and engineering complexity (including flooding and watercourse crossings)**
    - Favours a single funding program and early engineering validation on high-risk segments, with climate-aware design and staging to avoid scope creep and reactive rebuilds.
3. **Governance and long-term maintenance**
    - Supports a regional governance and maintenance model (whole-of-life planning, consistent design/operations, and dedicated resourcing).
4. **Landholder and community interface**
    - Requires a consistent engagement approach and mitigation measures (fencing/crossings, rules, reporting/enforcement) across shires
5. **Fire and emergency response**
    - Requires early DFES[3] engagement and a funded fire management and emergency response plan so responsibilities do not fall onto overstretched volunteers

These risks are manageable if addressed early through a coordinated corridor access and approvals pathway, targeted engineering validation of high-cost segments, a funded whole-of-life governance and maintenance model, consistent landholder and community engagement, and DFES-led emergency response planning.

[2] Public Transport Authority
[3] Department of Fire and Emergency Services

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4.4 Opportunities for Further Development

The review identified several system-wide and study-specific opportunities to strengthen a Wheatbelt Rail Trail Network and enhance its readiness as a unified, region-wide program. The table below summarises the key development opportunities.

Table 2 Identified Opportunities for Further Development

Opportunity Category	**Cross-study summary**
Governance and delivery model	No defined regional governance or asset-management model for a continuous Wheatbelt–Avon network.
Safety, emergency and risk planning	No assessment of fire risk, climate-driven fire behaviour, or system impacts on WA's volunteer firefighting capacity. ***Emergency response planning is undeveloped.***
Brand, visitor experience and activation	No single Wheatbelt/Avon trail brand, marketing strategy, or visitor-journey design across the network.
Benefits and evaluation	No quantifiable health savings, physical activity uplift, or mental health benefits, benefits are largely qualitative. Believed data does not exist.
Digital infrastructure and data	No digital mapping, wayfinding, or data-collection strategy is defined across the program.
Economic case	No economic modelling of a connected, multi-day Interconnected Wheatbelt Rail Trail, modelling is corridor-specific or absent.
Market analysis	Limited analysis of Perth families, e-bike users, adventure cyclists, price sensitivity or seasonal patterns.
Climate, environment and resilience	Limited design framework for climate resilience, heat mitigation, shade and water access

4.5 Benchmarking and Lessons Learnt

Successful long-distance rail trails such as New Zealand's Great Rides, the Otago Central Rail Trail, the Great Victorian Rail Trail and WA's Wadandi Track demonstrate strong demand for town-to-town riding, clear economic uplift, and the importance of coordinated governance and consistent standards. These precedents confirm the viability and value of the Wheatbelt Rail Trail Network.

4.5.1 Evidence of demand from comparable trails

1. **Town-to-town riding is a proven drawcard**
    - Established networks consistently show that multi-town itineraries and strong trail-to-town interfaces drive overnight stays, higher visitor spend and repeat visitation.

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2. **WA has an existing long-distance trail market**
    - The Bibbulmun Track, Mundaring Network of Trails, including Kep Track, and Munda Biddi confirm strong local and visitor appetite for multi-day trail experiences.
3. **International precedent reinforces the opportunity**
    - New Zealand's Great Rides / NZ Cycle Trail network shows how coordinated governance, consistent standards and destination activation can scale a national trail product and attract significant domestic and international use.
4. **Recent State investment signals policy appetite**
    - The $17.5 million commitment to the Wadandi Track illustrates that long-distance trail infrastructure is already a recognised State priority when governance, staging and narrative are clear.

4.5.2 Lessons to Apply in the Wheatbelt Context

Lessons from other regional trail networks provide clear guidance on how to reduce delivery risk and maximise long-term value in the Wheatbelt. These include:

1. **Prioritise Governance**
    - Successful networks establish a lead entity, clear roles and a maintenance/asset plan before major capital delivery.
2. **Experience investment drives uptake**
    - Wayfinding, shade and water access, rest nodes, interpretation and safe crossings materially influence user satisfaction and repeat use.
3. **Tackle the most complex sections early**
    - Prioritising the highest-risk or most technically challenging segments upfront provides the blueprint for resolving similar issues elsewhere. If these constraints cannot be overcome, it is better to identify this early before investing in lower-complexity sections that cannot ultimately connect.
4. **Brand and Activation**
    - A coherent network identity, events calendar and industry partnerships increase visibility and spend per visitor.
5. **A transport-trail model broadens the market**
    - Compared with adventure-oriented products like the Munda Biddi, the proposed Wheatbelt network offers gentle gradients, town-to-town riding and accessibility for families, older riders and e-bike users. There is current opportunity in the market which an Interconnected Wheatbelt Rail Trail can fulfil.
6. **Cultural interpretation as a core experience layer**
    - The Concentric Circles framework highlights a significant opportunity to embed Aboriginal cultural interpretation into trail experiences. Integrating Noongar language, stories and cultural landscapes into the Wheatbelt Rail Trail network strengthens authenticity, deepens visitor engagement and aligns with State priorities for cultural tourism.

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5 Stage 1 - Beverley to Narrogin

The Beverley–Narrogin studies offer two complementary experiences:

- Green Route - a safe, separated, rail-aligned corridor suitable for families, older adults, e-bike users and walkers,
- Orange Route - a scenic backroads touring experience appealing to gravel riders and bike packers.

The Green Route provides the safest, most inclusive and strategically aligned foundation for Stage 1 and is the basis for this review.

Beverley, Brookton and Narrogin consistently emerge across all studies as the corridor's strongest trail towns, with multiple existing accommodation, hospitality and visitor services. Connecting these towns first delivers the highest early demand, maximises Perth-proximate visitation and establishes a strong foundation for a multi-day regional trail product.

The Beverley–Narrogin Green Route forms the network's spine, converting separate concepts into a connected, metro-accessible town-to-town experience and establishing the governance, design and delivery model for future stages.

It is recommended for Stage 1 because it:

1. **Connects the strongest tourism towns** - enabling early use and immediate regional spend.
2. **Unlocks the wider network -** linking directly to Narrogin–Williams, Darkan–Williams and Collie–Darkan, and interfacing with northern connections through the Avon Central Coast 2050 Cycling Strategy.
3. **Establishes a replicable delivery model** - by resolving the most complex approvals, tenure gaps and engineering challenges early.
4. **Demonstrates strong early demand** - with the largest Perth-proximate catchment and multiple towns suited to overnight itineraries.
5. **Delivers the strongest strategic alignment** - with DLGSC, WAVES 2033, the Long-Term Cycle Network and the Avon Central Coast 2050 Cycling Strategy.
6. **Positions WA as a national leader** - by launching a flagship long-distance transport trail and a credible pathway to a broader Wheatbelt–Avon network.

Stage 1 should commence with the Beverley–Narrogin Green Route. It delivers the network spine, captures early tourism value, resolves the highest-risk constraints first and sets the blueprint for all remaining corridors.

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6 Estimated Financials

6.1 Project Cost – Capital (CAPEX) and Operational (OPEX)

Table 3 Estimate Project CAPEX, OPEX, ROI (Return on Investment) and Annual Revenue

Study	**No. Shires**	**Distance (KM)**	**CAPEX (~$M)**	**OPEX (~$M)**	**ROI**	**Annual Revenue (~$M)**
AVON Central Cost 2050 Cycling Strategy ***Northam – Beverley Only***	3	~70	$ 6.1M	$0.2M	<2.5 yrs	$2.6M
*Beverley-Narrogin Transport Trai**	5	~107.1**	$ 9.5M	$0.26M	<5.5 yrs	$1.8M
Narrogin - Williams Rail Trail	2	~34	$4M	$0.08M	<4 yrs	$1M
Darkan-Williams Rail Trail	2	~47	$1.4M	$0.12M	<2 yrs	$1M
*Collie Connection***	1	~19	$1.7M	$0.05	<2	$1M
Wheatbelt Rail Trail Totals	**10**	**~277km**	**~$22.7M**	**~$.68M**	**<3.5 yrs**	**$7.2M**

* This has been based on the adoption of the Green Route, without access to ARC infrastructure / existing railway maintenance tracks. **Estimated 6km distance for Beverley Trailhead – Caudle Road (separate Project in progress which is costing this section due to additional engineering complexity). **'Collie Connection re-links the established Collie-Darkan trail, for the Trail Head to commence within the Collie Town Centre.

The study indicates that approximately 76% (81 km) of the Beverley–Narrogin Green Route would require full new construction because ARC Infrastructure does not currently permit rail-adjacent access. If ARC were to support access along the entire corridor and existing maintenance tracks could be utilised, Stage 1 capital costs are estimated to reduce by ~$6.8M, primarily by avoiding new earthworks, fencing, drainage reconstruction and road-reserve deviations. Publicly available data indicates that approximately 20 trains per year operate on the Beverley–Narrogin line at an average speed of 42 km/h, indicating low usage.

Table 4 Estimate Project Variance based on utilisation of ARC Infrastructure Maintenance Corridors

Stage 1 Cost Variance BE- NGN Study	**Distance (KM)**	**CAPEX (~$M)**	**OPEX (~$M)**	**ROI**	**Annual Revenue (~$M)**
Beverley-Narrogin Transport Trail ***WITHOUT ARC Infrastructure***	~107.1	$9.5M	$0.26M	<5.5 yrs	$1.8M
Beverley-Narrogin Transport Trail ***WITH ARC Infrastructure***	~107.1	$2.6M	$0.26M	<1.5 yrs	$1.8M
Estimated Variance		**$ 6.8M**	**$ -***	**4 yrs**	**$ -**

*Opportunities to reduce OPEX through shared maintenance track costs, yet to be quantified.

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6.2 Project Cost Assumptions

Not all studies provided cost estimates for CAPEX, OPEX, annual revenue or ROI. Where data was available, these figures have been used and extrapolated across the relevant trail sections. The table below outlines the source or method used for each estimate.

All figures are indicative only, extrapolated from the Beverley–Narrogin Transport Trail Volume 2: Feasibility Study, and assume minimal upgrades to existing ARC track conditions. Further investigation and refinement will be required

Table 5 Estimated Figures Assumptions

Study	**Distance**	**CAPEX**	**OPEX**	**ROI**	**Annual Revenue*** **
AVON Central Cost 2050 Cycling Strategy	Est trail distance BE-N with Rail Trail Alignment*	Est Distance x $87,688 (average km/ CAPEX per BE-NGN*)	Utilise BE-NGN report reference $2465/yr per KM	CAPEX / Annual Revenue	Utilise BE-NGN report reference $254.2/day per visitor est 10,500 – 3x increase due to proximity to Kep Trail & Metro
Beverley-Narrogin Transport Trail	Report	Report plus 6km (uncosted section Caudle Road) calculated with a 15% uplift on 6km, $100840 per km due to engineering complexity**	Report est $2465/yr per KM Gov Maintenance	CAPEX / Annual Revenue	Report
Narrogin - Williams Rail Trail	Report	Report	Utilise BE-NGN report reference $2465/yr per KM	CAPEX / Annual Revenue	Report
Darkan-Williams Rail Trail	Report	Report figure x 1.5 for CPI	Utilise BE-NGN report reference $2465/yr per KM	CAPEX / Annual Revenue	Utilise BE-NGN report reference $254.2/day per visitor est 3500 – consistent with BE-NGN & NGN-WL est. visitor numbers.
*Collie Connection****	Estimated 19km based on WA Trails	Est Distance x $87,688 (average km/ CAPEX per BE-NGN*)	Utilise BE-NGN report reference $2465/yr per KM	CAPEX / Annual Revenue	Utilise BE-NGN report reference $254.2/day per visitor est 3500 – consistent with BE-NGN & NGN-WL est. visitor numbers.

*The Beverley–Northam distance reflects only the direct York–Northam link. If the additional spur from Spencers Brook to Clackline is included (shown in Figure 1), a further 15 km is added, increasing loop options between the established Kep Track and the proposed Wheatbelt Rail Trail.
** The Beverley–Narrogin feasibility study excludes approximately 6 km of alignment, Bevereley Trailhead to Caudle Road. This cost analysis has used the report base 101.1k CAPEX benchmark of $87,688 per/km(costed) and added a 15% uplift of $100.840/km applied only to the 6km previously excluded, to reflect known higher construction complexity. A separate project is currently underway to formally cost this section.
***Annual Revenue is based on overnight stays, no cost estimate on increased revenue from additional employment opportunities such as creation of Trail Tours is included.
****Collie Connection has been included in the cost analysis for context, to reflect the circular loop which would strengthen the network by supporting overall network coherence.

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6.3 Established Trails Annual Revenue

Multiple authoritative sources, including Rail Trails Australia, and the DLGSC Concentric Circles guidance, consistently state that looped or connected routes increase visitor appeal, support higher repeat visitation, strengthen commercial viability, and increase annual revenue generation.

The Table below provides context, a 10% increase in usage across the established Bibbulmun and Mundaring Trails would generate an estimated additional $6.7 million in annual revenue.

Table 6 Estimated Established Trails enhancement with establishing the Wheatbelt Rail Trail

Trail	Distance	Type	Annual Revenue	Annual Revenue WITH Wheatbelt Rail Trails	Variance 10%
Bibbulmun	~1,000KM	Walking	$ 39M	$ 42.9M	$ 3.9M
Mundaring Trails	Various Loops,1-41km	Mixed-Use Network	$ 27.8M	$ 30.6M	$ 2.8M
Totals			**$ 66.8M**	**$ 73.5M**	**$ 6.7M**

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7 Stakeholder Summary

The studies have a broad and diverse stakeholder landscape, with several stakeholders appearing consistently, and others unique to specific corridors, highlighting the need for a coordinated, region-wide approach. Some stakeholders not identified in the studies have been within this review and incorporated below.

Table 7 Project Stakeholders

Stakeholder Category	**Stakeholders Identified Across the Studies**
State Government	PTA (Public Transport Authority), ARC Infrastructure, Department of Transport (DoT), DLGSC, Tourism WA, DBCA (Parks & Wildlife), DFES (not previously engaged, but should be), Main Roads WA
Local Government	Shires of Beverley, Brookton, Pingelly, Cuballing, Narrogin, Williams, Collie, West Arthur, Northam and York.
Traditional Owners	Noongar groups (Ballardong, Wiilman, Gnaala Karla Booja depending on corridor)
Landholders & Industry	Adjacent farmers, pastoralists, freight operators, utilities (Western Power, Water Corp), private property owners
Community & User Groups	Local residents, trail users (walkers, cyclists, e-bike users, schools, sporting clubs)
Tourism & Business	Local tourism associations, visitor centres, accommodation providers, cafes, pubs, retail, regional tourism organisations
Environmental & Heritage	Local Natural Resource Management groups, conservation volunteers, historical societies, river care groups
Emergency Services	Volunteer Bushfire Brigades (not previously engaged, but essential), St John Ambulance, WA Police, DFES (not previously engaged, but essential)
Project Delivery Partners	Consultants, engineers, surveyors, trail builders, community working groups and (recommended) Project Steering Committee

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8 Key Review Findings

The review highlights a consistent set of strategic considerations that shape the case for progressing a connected, cross-shire trail network.

1. **Beverley–Narrogin corridor as the network backbone**
    - The Beverley–Narrogin route emerges as the essential spine of the wider network, with early delivery enabling staged expansion across multiple shires.
2. **High metropolitan demand with strong regional returns**
    - The network is well positioned to attract Perth day-trip and short-break users while directing visitor spend into Wheatbelt towns and services.
3. **Clear alignment with State priorities**
    - The project aligns strongly with multiple State strategies around cycling, tourism, health and community strategies, and presents a future (currently out-of-scope) opportunity to interface with the Perth PSP network.
4. **Cost and delivery complexity concentrated in infrastructure constraints**
    - Major cost drivers include crossings, drainage, fencing, tenure limitations and agency requirements. A staged delivery approach is the most feasible pathway.
5. **Manageable risks with early intervention**
    - Key risks relate to corridor access and tenure, landholder confidence, governance and maintenance responsibilities, and emergency response planning. All are manageable if addressed early.
6. **Progress depends on coordinated leadership and dedicated resourcing**
    - Moving forward requires an agreed governance model and a funded project resource to drive cross-shire collaboration, resolve corridor access and standards, sequence delivery, and prepare a whole-of-network investment case.

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9 Proposed Next Steps and Timeline

To progress the Wheatbelt Regional Trail Network from strategy and feasibility to a fundable, staged delivery program, the following steps are recommended. These actions establish the governance, documentation and evidence base required to secure State and Local Government investment. They are structured into four phases:

1. Phase 1 – Establish Foundations and Support
2. Phase 2 – Build the Investment case and Program Pipeline
3. Phase 3 – Prepare for Delivery
4. Phase 4 – Commence Build

9.1 Phase 1 - Establish Foundations and Support

The recommended next steps have an estimated timeframe of 6-8 months, pending endorsement turnaround.

Table 8 Phase 1 Recommended Next Steps

Action	Purpose / Why It Matters	Key Activities / Detail
Council Endorsement Pack	Build unified cross-shire support and messaging	Prepare councillor-facing brief, align LGAs, confirm shared position
Cross-Shire Governance	Establish leadership and decision-making structure	Confirm lead agency, roles, responsibilities, Operations and Maintenance approach e.g MoU / Project Steering Group
Program Resourcing	Ensure dedicated capacity to drive the program	Secure Program/Project Lead and specialist support
Risk Mitigation Strategy	Address the highest-impact risks early	Agree approach to corridor/tenure, engineering, multi-shire delivery, Orange vs. Green Route
Build ARC Justification Framework	Present clear, evidence-based rationale for access	Comparative visuals, cost logic, shared briefing note/memo.
Establish Trail Brand	Create a unified, professional identity for funding readiness	Develop logo, palette, style guide and sample applications

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9.2 Phase 2 - Build the Investment Case and Program Pipeline

Phase 2 recommended next steps have an estimated timeframe of 6-8 months.

Table 9 Phase 2 Recommended Next Steps

Action	Purpose / Why It Matters	Key Activities / Detail
Ministerial/Treasury Briefing Pack	Build a decision-ready funding case	Strategic alignment, approvals pathway, investment narrative, costs
Elevate ARC Access Request	Build political support for preferred alignment	Ministerial briefing, unified shire position, utilise justification framework
Consolidated Risk Register	Create a single risk management framework	Safety, fire/emergency, landholder interface, mitigation measures
Long-Term Network Vision	Show how the full network connects	Map, narrative, regional interfaces, future PSP opportunity, established trails linkage
Funding Submission Pipeline	Prepare investment-ready proposals	Package staged submissions aligned to State pathways

9.3 Phase 3 – Prepare for Delivery

Phase 3 recommended next steps have an estimated timeframe of 12 months.

Table 10 Phase 3 Recommended Next Steps

Action	Purpose / Why It Matters	Key Activities / Detail
Stakeholder Engagement Plan	Coordinate engagement across all partners	State agencies, TOs, landholders, utilities, user groups, tourism groups
Program Staging Plan	Sequence delivery identification and manage complexity	Quick wins and parallel workstreams for complex segments identified.
Approvals & Corridor Access	Secure access and compliance requirements	ARC/PTA engagement, fencing, crossings, insurance, corridor rules
Engineering Validation	Reduce cost uncertainty and escalation risk	Targeted design on high-cost segments
Economic & Benefits Model	Strengthen the ROI case	Consistent model, sensitivity testing, quantified benefits available
Operations & Maintenance Model	Define long-term responsibilities and costs	OPEX forecast, asset ownership, service standards

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9.4 Project Timeline

Based on the key recommendations and critical tasks, the image below illustrates a plausible project timeline.

Figure 2 Project Timeline

9.5 Phase 4 – Build Commencement

Phase 4 timeframe would be quantified throughout Phases1-3.

Table 11Phase 4 Recommended Next Steps

Action	Purpose / Why It Matters	Key Activities / Detail
Phase 4 – Build Commences	Commence Staged Build	Commence Staged Build – Detail to be clarified through Phase1-3.

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10 Conclusion – Why the Project is Worth Doing

The combined evidence from the strategic and feasibility studies demonstrates that establishing an interconnected Wheatbelt–Avon regional trail network, anchored by the Beverley–Narrogin corridor, directly supports multiple State priorities across transport, tourism, health, regional development and active recreation.

Recent State investment in long-distance trail infrastructure provides a clear precedent and confirms Western Australia's appetite and capability to deliver nationally significant trail assets where governance, staging and strategic alignment are clear.

Delivering the Beverley–Narrogin corridor presents known challenges, including negotiated rail-adjacent access with ARC Infrastructure, resolution of higher-cost watercourse crossings, and coordinated delivery and maintenance across multiple local governments. These risks are well understood and manageable. Indicative estimates place Stage 1 at approximately $9.5 million CAPEX with annual OPEX of around $0.26 million, while the full Wheatbelt Rail Trail network is estimated at approximately $22.7 million CAPEX and $0.68 million per year OPEX. Importantly, access to existing ARC maintenance corridors has the potential to reduce Stage 1 capital costs by up to $6.8 million, significantly improving value for money.

The Beverley–Narrogin corridor provides the essential spine of the wider network. It delivers a safe, low-gradient, town-to-town transport trail linking six communities, captures strong metropolitan day-trip and short-break demand, and establishes the platform for staged expansion across the Wheatbelt–Avon region. It also sets the governance, delivery and operational model required to de-risk and accelerate future corridors.

With early State-led corridor negotiations, disciplined staging, and the governance and resourcing steps outlined in this report, the project is both achievable and strategically positioned to become a region-defining tourism and recreation asset for Western Australia.

This report recommends progressing the Beverley–Narrogin corridor as Stage 1 of the Wheatbelt Rail Trail program, securing participating Shires' endorsement for a unified program approach and governance model, and engaging the State to support corridor negotiations and establish a clear funding pathway for staged delivery.

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11 Supporting Documents

- PDF - Infographic Summarising 'Interconnecting Wheatbelt Rail Trails' Report
- PDF - Wheatbelt Rail Trails **map showing the proposed trail**
- PDF - Wheatbelt Rail Trails **map showing trail, accommodation & food options**

12 References

Trail Reports

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Wheatbelt Rail Trail

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01. The Vision

A connected loop trail from and to Perth through the Wheatbelt, and South West delivering regional and metropolitan benefits

What's the Project?

A 277+ km, multi-shire, town-to-town cycling and walking network connecting Beverley, Brookton, Pingelly, Cuballing, Narrogin, Williams, Darkan, Collie, York and Northam.

02. Why This Project Matters

Tourism

High-demand, metro-accessible, new long-distance trail, strengthens existing trail utilisation

Economy

Strong ROI, immediate boost to local economy, opportunity to grow and establish new small businesses

Community

Safe, off-road, low-gradient recreation for all ages, connecting town centres

Health

Provides outdoor recreational areas, improving pysical and mental wellbeing

Regional Development

Connects 9 shires and strengthens town to town connectivity

Perth Market

Sits within the 60-120mins high return travel band

03. State Strategic Alignment

What does the project align with?

6 WA Strategies

Long Term Cycle Network
DLGSC Strategic Plan
WAVES 2033
Wheatbelt Development
Tourism Strategy
WA Mountain Bike Strategy
RDA Wheatbelt Plan

Frameworks 3

WA Trails Blueprint
More People More Active Outdoors
Australia's Golden Outback Plan

1 Methodology

Concentric Circles

Wheatbelt Rail Trail

Broadview CONSULT

01. Network Est. Cost

~$22.7M Capital $

Annual Operational $ ~$0.68M

~$7.2M Annual Revenue

02. Stage 1 Est. Cost

~$9.5M Capital $

Annual Operational $ ~$0.26M

~$1.8M Annual Revenue

03. What Stage 1 Delivers

107km of connected trail

6 Towns linked

5 Shires collaborating

Stage 1 is the backbone for the full network

04. Creates Links

To the **Bibbulmun Track**, Mundaring Network Trails - Kep Track & **Munda Biddi Cycle Trail**

05. What needs Solving?

Governance Model & Resourcing

Corridor access (ARC/PTA)

06. What is Needed to Progress

Endorse Beverley–Narrogin as Stage 1, Progress the Interconnecting Wheatbelt Rail Trails as a Unified, Staged Program

Wheatbelt Rail Trail

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